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INDEX.

Abortion—Treatment of, 423.
A Case of Living Xiphopagus, 28.
A Case of Pneumonia with Remarks, Kempf, E. J., 894.
A case of Diphthretic Croup in which a Tracheotomy Tube was worn for sixty days, Wharton, H. R., 923.
Abscess of Frontal Sinus, Wall, G. A., 166.
Abuse of Milk in Albuminurics, 345.
Acne, 301.
Actinomycosis Hominis, 158.
Action of Chloroform upon the Human Being, 308.
Acute Forms of Gastric Hyperasthemia, 746.
Intestinal Obstruction—Treatment of, 545.
A Discussion of the Legal Aspect of Criminal Abortion, Porter, William W., 655.
Administration of Chloroform and Its Dangers, 103–624.
Of Ether for Surgical Operations, Morris, Ellis-ton J., 569.
Advantages of Antiseptic Irrigation of Parturient Canal Before and After Labor, Barker, T. Ridgway 845.
Address on Hygiene, Dixon, Samuel G., 876.
After-effects of Chloroform, 913.
After Effects of Chloroform, 273–420.
Albuminuria During Pregnancy, 108.
All That is Necessary, 211.
American Medical Association, 930-962.
Amputation at the Hip; Re-section of the Rib, 171.
At Hip Joint: Encysted Cartilaginous Tumor near Subclavian Vessels; Operation on the Fifth Nerve, 691.
Anæsthetics—New Local, 516.
Aneurism of Cheek, 540.
Animal Extracts: Mode of Preparation and Physiological and Therapeutical Effects, Hammond, William A., 243.
Anti-Cholera Vaccination, 703.
Anti-Syphilitic Treatment—Proper Duration, 273.
Aortic Aneurism by Electrolysis Through Introduced Wire—Treatment of, 155.
Appendicitis, 77–116–292–697–824.
Medical and Surgical Management, 107.
Plea for Early Surgical Treatment, Cordier, A. H., 1.
Apotheosis of Dirt, Link, Wm. H., M. D., Petersburg, Ind., 319.
Apyretic Scarlatina, 861.
Aristol, 39.
Armour Institute, 359.
Arsenical Treatment of Multiple Sarcomatosis of the Tegumentary and Mucous Surfaces, 754.
Artificial Induction of Labor, 698.
A Short Umbilical Cord, Carroll, J. B., 132.
Aseptic and Antiseptic Care of Lying-in Woman and New-Born Child, Norton, H. G., 16.
Asepsis and Antisepsis in the Lying-in Chamber, 155
In Obstetrics, Mitchell, 366.
Attempt to Make a Radical Cure in Three Cases of Hernia, Wright, J. S., 168.
Aural Symptoms of Neurasthenia, 153.
Auto-Suggestion—The Kitsune-tsuki, 185.

Bacteriological Notes, 945.
Bacteria of the Stomach, 590.
Bi-Lateral Oophorectomy for Cure of Osteomatacia, 466.
Bacillus Coli Communis in Inflammatory Affections of Anus, 705.
Of Eclampsia, 516.
Birth in the Coffin After Maternal Death, 621.
Biology of Cholera Bacilli, 908.
Bow-legs, 595.
Black Eye, 87–545.
Bleeding Fibroids and Endometritis, 435.
Brain Syphilis, 495.
Brittle Bones, 589.
Bubo, 332.
Bugs and Bug Poisons, 291.
Burns of Conjunctiva by Instillation of Calomel, while giving Potassium Iodide Internally, 194.

Can a Septic Bullet Infect a Gunshot Wound? 78.
Cancer of Œsophagus—Rupture into Thoracic Cavity, 541.
Carbolic Acid in Surgery, 515.
Carcinoma—Mammæ, 492.
Thyroid Gland, 507.
Uteri, Montgomery, E. E., 10.
Cardiac Stimulation in Pneumonia, 370.
Stimulation in Pneumonia, Larrabee, John A., 364.
Caries of the Coccyx, 154.
Cæsarean Section for Eclampsia, 347.
Case of Cerebral Surgery, Dugan, W. C., 130.
Poisoning of Methyl Blue, 66.
Catarrhal Nephritis in Syphilis, Tuberculosis and Leprosy (Lepra), 181.
Sore Throat—Treatment of, 40.
Cautionary Facts, 754.
Cerebral Concussion, 177.
Syphilis, Hays, J. E., 86.
Spastic Paralysis, Willard, DeForrest, 762.
Certain Forms of Septicemia Resulting from Abortion, Currier, Andrew F., 214.
Cervical Stenosis, by Bi-lateral Discission—Treatment of, 744.
Chloroform as a Hæmostatic, 914.
Chloroform Anæsthesia and Its Administration, Gunterman, P., 806.
Anæsthesia and Its Administration, 851.
How to Administer Properly, 515.
Internal Uses of, 39.
Cholera, Epidemic of 1892, 29.
Cholecystotomy, 889.
Chronic Articular Rheumatism, 821.
Inversion of Uterus, Brasius, W. L., 446.
Pulmonary Phthisis in Later Adult Life, 433.
Clean Cistern Water, to, 112.
Clinical Observations in New York, Link, W. H., Petersburg, Ind., 927.
Clinical Classification of Hip Disease, 116.
Contributions on Intestinal Occlusion, 784.
And Experimental Contribution to Treatment with Creasote of Pulmonary Tuberculosis, Albu, 89.
Investigations Regarding Enlarged Thyroid and Operations for Relief, 702.
Observations in New York, Link, W. H., 681.
Club Foot, 68.
Coagulability of Blood in Parturition a Factor in Occurrence of Postpartum Hemorrhage, 670.
Cocaine Antidotes, 76.
Cocaine Antidotes, 913.
Cocillana, 316.
Cod Liver Oil in Rheumatics—Use of, 76.
Coffee as a Cause of Itching, 404.
Cold Bed, The, 223.
Congenital Club-foot, 821.
Syphilis, 114.

Consumption Caused by Cows, 671.
Continued Administration of Digitalis, 667,
Contributions to Pathology of Psoriasis, 829.
Correct Gymnastic Positions, 67.
Country Physician, The, Holmes, John C., 336.
Criminal Abortion, Parish, Wm. H., Jr., 644.
Responsibility in Early Stages of General Paralysis, Norbury, Frank P., 44.
Cry of Children, the, 913.
Croup Treatment, 433.
Cuneihysterectomie—New Operation for Flexion of Uterus, 385.
Curette in Obstretric and Gynecological Practice, Cecil, Jno. G., 50.
Cutaneous Cicatrices of Syphilis, 627.
Cystic Goitre with Cases in Practice, 953.

Dandruff Cures, 404.
Death in Infants from Hypertrophy of the Thymus, 464.
Deaths Under Chloroform, 196.
Decidua in the Diagnosis of Extra Uterine Pregnancy, 755.
Delirium Tremens, Treatment of, Without Choloral Bromide of Potassium or Opiates, 159.
Dermoids, Price, Joseph, 561.
Destiny of a Ligature used in Ovariotomy After Five-and-a-half Years, 466.
Diabetes Following Extirpation of the Pancreas, 754.
Mellitus, by Means of Pancreatic Juice—Treatment of, 190.
Diagnosis of Cancer of the Pancreas, 228.
Did not Know it was Loaded, 471.
Diet in Obesity, 433.
Different forms of Iritis and their Treatment, Mansfield, Arthur D., 401.
Differentiation of the Typhoid and the Coli Communis Bacilli, 269.
Of Bacillus Coli Communis and Bacillus Typho Abdominalis, 468.
Dilute Nitrohydrochloric Acid, 635.
Diphtheria Treated by Tartaric Acid and Corrosive Sublimate of Mercury Method, Tull, M. Graham, 809.
Diphtheritic Angina, by Chromic Acid—Treatment of, 388.
Dirty Midwifery, 382.
Discriminating Diagnosis Between Cerebral Hemorrhage and Acute Softening, 154.
Dislocations, 363.
Distribution of Bacilli of Diphtheria in the Human Body, 467.
Double Excision of the Knee, 59–221.
Do the Sick ever Sneeze, 948.
Drunkenness with Strychnia—Treatment of, 784.
Drunk or Dying, 524.
Duboisine in Treatment of Hystero-Epileptic Convulsions, 316.

Early Extirpation of Tumors, 154.
Treatment of Congenital Club-foot, Hogan, Samuel Mardis, M. D., 197.
Echinococcus in the Throat, 228.
Eclampsia of Pregnancy, Barnes, I. C., 517.
Treatment of, 435.
Ectopic Gestation, 596.
Enlargement of Cervix during Pregnancy, 898.
Enuresis Diurna, 901.
Epilepsy, 956.

EDITORIAL—

Drainage needed, 971.
Extra Uterine Pregnancy, 666.
Gynecology Among the Insane from Another Point of View, 341.
Home Quarantine, 141.
Innocents Abroad, 263.
Medical Examiner's Bill for Pennsylvania, 548.
Legislation in Georgia, 781.
Schools—Their Management.
"Much Ado About Nothing," 616.
National Quarantine, 100.
New Medical Law in Pennsylvania, 856.
Penetrating Gunshot Wounds of the Abdomen, 743.
Practical Cleanliness, 436.
Professional Courtesy, 546.
Quarantine Problem, 97.
Support the Medical and Examiners' Bill, 488.
The ReductioAd Absurdum, 386.
The New Quarantine Law in Pennsylvania, 907.
The Significance of the Black-Ball, 905.
The Itching Palm, 942.
A Modern Don Quixote Charging a Wind-mill, 302.
An Agnew Memorial, 179.
Abdominal Surgery—Its Revolution, 140.
Anæsthesia, 500.
A Gratuitous Insult, 827.
Board of Health, Editor *Public Ledger*, 63.
Cholera This Season, 421.
Cleared Up, 589.
Department of Public Health, A, 61.
Editorial, 25.
Examination of Sputum for Tubercle Bacilli, 224.
Extra Uterine Pregnancy, 666.
Fortified Against Microbes, 783.
Furor—Operandi and Modern Listerianism, 855.
Gynecology Among the Insane, 62.

Effects of Acids on Functions of the Stomach, 273.
Effect of Intra-Nasal Obstructions on the Singing Voice, 64.
Electricity in Gynecology, Successes and Failures with Smith, A. Lapthorn, 6.
Emergencies, 109.
Epicystotomy for Removal of Catheter from the Bladder, 850.
Epileptic Seizures During Tonsillotomy, 584.
Epithelioma: Traumatic Epilepsy, 254.
Epistaxis, 709.
Etiology of Acute Bright's Disease, 77.
Of Emphysematous Cellulitis, 705.
Of Prostatic Hypertrophy, Lydston, G. Frank, (Monograph No. 2), 1.
Exanthemata During Puerperium, 830.
Exophthalmic Goitre, 351.
Expectant Treatment in Typhoid Fever, 115.
Experimental Typhoid Fever, 304.
Extra Uterine Pregnancy, 69–368.
Pregnancy, Price, Mordecai, 764.
Equitable Responsibility of Inebrity, 33.

Facts to be Considered by Obstetricians, 820.
False Neurasthenia, 96.
Fatal Rupture of Pyosalpinx, 156.
Suppuration Beneath the Shoulder Blade, 144.
Faults in Voice Production which Lead to Voice Disease, 795.
Femoral Aneurism—Treatment by Compression, Mol-
Filoy, Rushton, 597.
stula in Ano, Operation, 900.
Five Cases of Vaginal Hysterectomy for Malignant Disease of the Uterus—all recovered, McNutt, W. F. 79.

FORMULÆ—

Abdominal Operation Wounds, Dressing for 869.
Abscesses, 868.
Alcoholism (Chronic), 826-868.
Acute Laryngitis in Children, 855.
Agreeable Salicylic Mixtures, 753.
Allingman's Ointment for Hemorrhoids, 310.
Anal Fissure, 428
Anæmia and Chlorosis, 714.
Antiseptic Dental Cream, 514.
Asthma, 113-714.
Barbers' Itch, 514.
Battery fluid, 869.
Bright's Disease, 869.
Bronchial Asthma, 638.

Burns, Application for 428.
Burns in Children, 311.
Burns of the Eye, 310.
Carbuncle, 753.
Catarrh, Acute Nasal, 113.
Cement for Glass to Glass, 311.
Cementing Iron, 416.
Chancroids, 714.
Chillblains, 753.
Chloral in boils, 753.
C. Chlorodyne, 548.
Cholera Cure, 310.
Cholera Infantum, 753.
Chronic Bronchitis and Emphysema, 795.
Chronic Eczema, 753.
Chronic Rheumatism, 310.
Cleaning Wall Paper, 311.
Coccydnia, 112.
Collodion for Gouty Joints, 714.
Corneide—English Corn Cure, 310.
Constitutional Syphilis, 713.
Counter-irritant in Diseases of the Chest, 714.
Creasote Treatment of Tuberculosis, 113.
Croup, 635.
Cutaneous Diseases, 753.
Cystitis, 635.
Cystitis in Women, 310.
Dentifrices for Mercurial Stomatitis, 635.
Detection of Pus in Urine, 112.
Diabetes, 869.
Diphtheria, 310-427.
Disguising the Taste of Cod-Liver Oil, 714.
Disguise Turpentine, 713.
Dressing for Cuts, Sores, Scalds, etc., 533.
Dry Pleurisy, 752.
Dusting Powder for Children, 428.
Dysentery, Chronic, 869.
Dysentery, Acute, 869.
Dysmenorrhœa, 868.
Earache, 753.
Eczema, (Chronic) 868.
Emulsion, Castor Oil 112.
Enteritis, 869.
Epilepsy, (to Prevent Nocturnal Fits) 868.
Epistaxis, (in Anæmic Cases) 868.
Erysipelas, 634.
Excessive Thirst in Diabetes, 753.
Exophthalmic Goitre, 868.
Expectorant, 428.
Fissures of the Breast, 868.
Fissures of the Nipples, 427.
Fissures of the Tongue, 868.
Frost Bite, 112.
Frosted Feet, 634.
Gastralgia, 541.
General Nervousness and Depression of Spirits, 714
Gonorrhœa, 112-514.
Gonorrhœa in Females, 513.
Habitual Abortion, 714.
Habitual Constipation, 112.
Hard Tooth Soap, 310.
Hiccough, 714-868.
Hooping Cough, 714.
Impetigo Contagiosa, 514.
Inhalation for Whooping Cough, 665.
Ingrowing Toe-nail, 869.
Intestinal Fluxes, 635.
Iodated Water in La Grippe, 428.
Irritable Bladder with Acid Urine, 550.
Irritable Cough, 635.
Laundry Starch Polish, 513.
Leather Bronze, 311.
Liniment for Neuralgia, 112.
Liniment of Subacetate of Lead, 428.
Local Anæsthesia, 635.
Local Psoriasis, 514.
Lumbago, 752.
Mercurial Stomatitis, 869.
Metal to Glass, Cement, 311.
Mucous Patches in the Mouth, 634.
Nervous Cough, 112.
Nervous Debility, 428.
Neuralgia, 753.
Neuralgia in Dysmenorrhæa, 310.
Ointment for Chronic Gonorrhœa, 310.
Ointment for Eczema, 310.
Ointment for Hemorrhoids, 112.
Otorrhœa, 753.
Pain in the Eye, Disease.
Painful Hemorrhoids, 428.
Painless Dilatation of Cervix Uteri, 112.
Paralysis, 752.
Patches on Skin and Mucous Membranes, 752.
Patent Leather Varnish; 311.
Pills of Iodide of Potassium, 948.
Pleurisy, 752.
Pomade for Psoriasis of Scalp, 514-635.
Post-partum Uterine Pains, 539.
Prophylactic for Tonsillitis, 427.
Protracted Croup, 713.
Pruritus Ani, 311.
Pruritus of the Vulva, 868.
Removal of Mother's Marks, 311.
Removing Warts, 112.
Rheumatism, Chronic, 753.
Ringworm, 427.
Round Worms, 515.
Santonin for Children, 311.
Santonin Lozenges, 427.
Scabies and Head Lice, 714.
Scrotal Eczema, 428.
Seborrhea of Scalp, 635.
Secondary Syphilis, 714.
Serous Diarrhœa, 112.
Significance of Subjective Cerebral Symptoms in Middle Ear Inflammation, 116.
Small Hemorrhoids and Pruritus Ani, 112.
Solution for treatment of Chancre, 113.
Soothing Syrup without Opium, 514-868.
Sore Throat, 514.
Substitute for Mothers' Milk, 428.
Sulphur Iodide in Acne, 634.
Swollen Eyes, 753.
Syphilis, 753.
Syphilitic, Oral, Lingual and Pharyngeal Lesions, 427.
Syphilitic Ulcers, 428, 665.
Tape worm, 112.
Tænifuge for Children, 514.
Tertiary Syphilis, 713.
Threatened Abortion, 310.
Thymol and Salicylic Acid against Fœtid Breath, 427.
Tonic Laxative, 635.
Tonsillitis, 310.
Tooth ache, 497.
Transfusion Fluids, 113.
Treatment of Led Colic by Olive Oil, 311.
Trional as a Hypnotic, 228.
Tubercular Abscesses, 634.
Typhoid Fever in Children, 427.
Uremic Vomiting, 714.
Vaginismus, 868.
Varicose Ulcers, 515.
Vesical Injections of Emulsions of Iodoform in Purulent Cystitis, 514.
Vomiting in Pregnancy, 514.
Wash for Pruritus, 428.
Wax from Ear, to remove, 634.
Worm Powders, 427.
Worm Syrup, 427.

Fracture of the Patella, 53-423.
Of Scapula from Muscular Action, Hoover, P. V.. 848.
Of the Thyroid Cartilage, 694.
Frequency of Local Symptoms of Uterine Displacement, 356.

Gall-Stones with Ulceration of the Gall Bladder into the Intestines, Currier, John M., 772.
Gangrene of the Hand Consecutive to Influenza, 227.
Following Fracture of Arm, 60.
Gangrenous Intestine—Treatment of, 865.
Gastro-Enterostomy—New Method, 274.
Intestinal Catarrh in Children, Taylor, J. Madison, 837.
Gastro-Intestinal Atony, 946.
Glanders in the Horse, Clinical Study of, 70.
In Man, 467.
Glycerin Jelly for Mounting, 420.
Gonorrheal Infection—Modes of Extension, 101.
Rheumatism, Vance, A. M., 490.
Gout in Child Eleven Years Old, 115.
Grafting with Pigeon Skin, 788.
Gravid Uterus, by Abdominal Section, removal of, 862.
Growth of Bacteria through the Pasteur-Chamberland Filter, 268.
Gynecology and the General Practitioner, Price, Joseph, 717.
Clinic—Buffalo General Hospital, Man, Mathew D., 323.
Technique, As Carried Out at the Gynecean Hospital, Baldy, J. M. 21.

Hemorrhoids, 24-77.
Hoffkine's Anti-Cholera Vaccines, Preparation of, 467.
Head Injuries with Aural Complications, 43.
Heart Strain, Prophylaxis and Treatment, Stockton, Chas. G., 844.
Heat in local Skin Diseases, 515.
Hemorrhage from Stomach or Bowels, 169.
Hepatic Insufficiency in Mental Disease—Heptic Insanity, 185.
Hernia Ischiatica, 669.
Hip Disease, Treatment of 826.
Hot water Bottles, Disadvantages of, 76.
How to Treat those Overcome with Gas, 316.
Hydatids of the Brain, 189.
Hydrecephalus, 146.
Hydrophobia, 395.
Hypertrophied Floating Spleen; Splenectomy with recovery, 226.
Hypodermic Medication in Syphilis, Wolff, L., 525.

Ichthyol in Gonorrhœa, 874.
Icterus and Acute Atrophy of Liver following Syphilis, 783.
Impacted Cerumen in Auditory Canal, Effects of, Cady, N. W., 444.
Improvised Splints for Fractured Limbs in Cases of Emergency, Simpson, A. O., 534.
Incipient Ischiatic Hernia, 550.
Incisions in the Abdominal Walls, and Ventral Hernia, Treatment of, Ladd, G. D., 14.
Individual Experience in the Treatment of Vesical Calculus, Ashhurst, John Jr., 920.
Indications for Intubation, 754.
Infantile Paralysis, 873.
Infectious Erythemas, 181.
Inflammation; Pus; Positively and Negatively Chemo-Lactic Substances, Cattell, Henry W., 48.
Influence of Massage upon Rapidity of Absorption of Therapeutic Substances, 754.
Inguinal Hernia and Epididymitis, 453.
Innocents Abroad, Strickler, O. C., 383.
Insurance Question, 57.
Interesting Ovariotomies, McMurtry, L. S., 288.
Intestinal Obstruction, 30
Intravesical Injections or Etheral Solution of Iodoform in Oil, 873.
Involution Forms of the Tubercle Bacillus and the Effect of Subcutaneous Injections of Organic Substances on Inflammation, Dixon, Samuel G., 317.
Ipecac as an Oxytoxic and Parturifacient, T hom Jno. J., 447.
Ipecacuanha in Uterine Inertia, Use of, 39.
Ischio-Pubeotomy, or the Operation of Farabeuf, 144.
Is it Catelepsy, Diurnal Epilepsy, Hysteria: Cerebral, Spinal, Functional or Organic, Justice, J. D., 448.

Jaborandi in Hiccough, 115.

Knee-Jerks in Supervenosity, 76.

Laceration of the Cervix, 871.
La Grippe or Epidemic Influenza, Results and Sequelæ, Bergey, D. H., 770.
Laparotomy performed on patients over seventy years old, 424.
Laryngeal Intubation, 195.
Lateral Dislocation of Elbow, 484.
Leucocythemia; Appendicitis, 173.
Leptothrix Mycosis of the Tonsil, Pharynx and Base of Tongue, with Report of three Cases, Cheatham, Wm., M. D., Louisville, Ky., 928.
Life Insurance and its Relations to U. S. Pensioners, Stimpson, A. O., Thompson, Pa., 926.

LIBRARY TABLE—

Allen etc., A Hand-book of Local Therapeutics, 949.
Westphal, Contributions to the Knowledge of Pseudo-Leukemia, 950.
Allen, Sam'l Ellsworth, M. D., The Mastoid Operation, 672.
Anderson, Winslow, M. D., Mineral Springs and Health Resorts of California, 472.
Beach, B. S., M. D., Histology, Pathology and Physics,
Bratenahl, G. W., Gynecology, 73.
Brockway, F. J., M. D., Anatomy, 73.
Bulkley, L. Duncan, A. M., M. D., Acne and Alopecia, 73.
Carmichael, James, M. D., Disease in Children, 312.
Cerna, David, M. D., Ph. D., Notes on the Newer Remedies and their Therapeutic Applications, 73.
Charcot, M. le Proff., Clinique des Maladies du Systeme Nerveux, 191.
Charcot, Traites de Medicine, 191.
Chetwood, C. A., M. D., Genito-Urinary and Venereal Diseases, 73.
Dana, Charles L., A. M., M. D., Text Book of Nervous Diseases, 352.
Dexter, Franklin, M. D., The Anatomy of the Peritoneum, 312.
Doubleday, E. T., M. D., Practice of Medicine, 73.
Foster, Dr., Text-Book of Physiology, Part V., Appendix, 472.
Gallandet, Bern. B., M. D., The Students Quiz Series, 73.
Gibson, George Alexander, M. D., Cheyne-Stokes Respiration, 672.
Gimmel, Scarlet Fever in the Adult, 949.
Hansell, Howard F., M. D., Manual of Clinical Ophthalmology, 150.
Haynes, Irving S., M. D., Guide to Dissection, 312.
Hochaus, Contributions to the Pathology of the Heart, 949.
Hoyt, C. W., M. D., Obstetrics, 73.
Hummel, A. L., M. D., Medical Journal Advertising, 151.
Ingals, E. Fletcher, A. M., M. D., Diseases of the Chest, Throat, etc., 312.
Killikelly, S. H., Curious Questions in History, etc., 151.
Kirchhoff, Theodore, M. D., Hand-Book of Insanity, 472.
Kleen, Emil, M. D., Hand-Book of Massage, 233.
Lydston, G. Frank, M. D., Gonorrhœa and Urethritis, 73.
McLaughlin, J. W., M. D., Fermentation, Infection and Immunity, 233.
Manning, Frederick A., M. D., Physiology, 352.
Manning, F. A., M. D., Physiology, 73.
Mathews, Joseph M., M. D., Disease of the Rectum, 36.
Miller, F. E., M. D., Disease of Eye, Ear, Throat and Nose, 73.

Nuttall, George F., M.D., Ph.D , Hygienic Measures in Relation to Infectious Diseases, 35.
Park, Davis & Co., Detroit, Mich., Price List, 472.
Ransom, Charles C., M.D., Diseases of the Skin, 832.
Rhodes, C. A., M. D., Diseases in Children, 73.
Sands, R. A., M. D., Surgery, 73.
Schæffer, O., M.D., Medical Pocket Atlases, 832.
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Stoel, Clinical Studies of Articular Rheumatism, 949.
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Swanzy, Henry R., A.M., M.B., F.R.C.S.I., Hand-Book of Diseases of the Eye, 149.
Talamon, Ch., M. D., Appendicite et Perityphlite, 150.
Transactions of the American Orthopœdic Association, Vol. V., published by Association, 472.
Fuchs, Ernest, Dr., Text-Book of Ophthalmology, 232.
Warner, L. F., M. D., Materia Medica and Therapeutics, 73.
Wilson, George, M. D., Hand-Book of Hygiene and Sanitary Science, 832.
Ed. Ziemssen, H. V., M. D., Ed. Zenker, F. A. V., or Pub. Vogel, F. C.W., Deutches Archive fur Klinische Medicine, 233.
Ziemssen, etc., Deutsche Archive fur. Clin. Med., 949.

Ligation of the Anterior Tibal Artery above the Ankle Joint, Stimpson, A. O., 131.
Locomotor Ataxia, Townsend, E. H., 119.
Lymphadenomæ, Ingalls, E. Fletcher, 405.

"Maison D'Accouchments Baudelogue," reportof, 859.
Malarial Fever, Lambert, J. R., 437.
Malignant Grippe, Burr, W. H.,
Management of Placenta in Delivery, 435.
Management of Superation Complicating Tuberculous MDisease of Bones and Joints, Gibney, V. P., 240.
astoid Disease and Brain Abscess, 217.
Massachusetts Medical Journal, 950.
Measuring Pelvis Outlet before Labor, 356.
Medical Events, 351.
Colleges and small cities, Link, Wm. H., M. D., 417.
Medical Practice in Germany, 942.
Metatarsalgia, 696.
Metatarsalgia (Morton's Painful Affection of the Foot) Morton, Thomas, S. K., 723.
Method of operating about the Face, by which little blood enters the mouth, 697.
Methods and Material in Abdominal and Pelvic Surgery, Price, Joseph, 886.
Micrococcus Lanceolatus, with special reference to the Etiology of Acute Labor Pneumonia, 268.
Microcephalus, Operation, 900.
Microbe Killer Defeated, 790.
Missed Abortion, 155.
Morphinism, Treatment of, 115.
Motor Disturbances in Diseases of Children, Wilmarth, A. W., 529.
Muscular Ruptures, 505.
Multiple Fracture of both Upper Extremities, 695.
Multiple Neuritis, Marechal, Edwin L., 637.
My Frst Case, 665.
Myatomy during Pregnancy, 703.

Nasal Douche, 555-715.
Necrosis of Pubic Bone, 217.
New Growth of the Umbilicus, 65.
New Method of Staining the Capsule on the Pneumonia Germ, 623.
Neuralgia, 866.
New York Letter, 138-222-260-300-339-384-419-462.
New York State Medical Society, 223.
Notes on Extra Uterine Pregnancy in the practice of Dr. Mordecai Price, Link, W. H., 600.
Nursing in Typhoid Fever, Holmes, John C., 128.

Object Lessons in Gynecology, Link, W. H., 41-157.
Observations on the Therapeutic Treatment of Uterine Fibroids, Adams, Chas. W., 683.
Official Surgery, 220.
Operative procedure applicable to large Pus Tubes closely adherent to the Uterus, 504.
Oophorectomy in Diseases of the Nervous System, Jones, Mary A. Dixon, 797.
Ophthalmia Neonatorum and Hydrocele, 453.
Otological Don'ts, Some, 864.
Our Dispensaries, Hospitals, Philanthropy, Frauds, and the Necessity of Medical Reform, 975.
Ovarian Dermoid Tumors, 186.
Ovarian Tumor, 332.
Ovarian Cyst and Uterine Fibroid, Mann, M. A., 883.

Pain and Insomnia, Treatment of, 227.
Papulo-Squamous Syphiloderm, Shoemaker John V., 205.
Paraldehyde, 39, 754.
Paralysis of Laryngeal Muscles, Cheatham, Wm., 486.
Paralysis of Laryngeal Muscles, 494-486.
Paranoia, Moyer, Harold N., and Lyman, Henry M., 441.
Parasitic Theory of the Etiology of Carcinoma, Park, Roswell, 237.
Parasitic Origin of Cancer, 590.
Passing a Sound through apparently impassible Stricture, 434.
Pathologico-Anatomical changes in Tetanus Traumaticus, 347.
Pathology of Carcinoma, 970.
Pathology of Diabetes, 668.
Pathology and Surgical Therapy of Chronic Diseases of the Cœcum, 143.
Pedicle in Abdominal Hysterectomy, Treatment of the, 184.
Pelvic Cellulitis, 608.
Pelvic Disease, 219.
Peptonuria in General Paralytics, 267.
Perforative Shot Wound of Abdomen, 735.
Periodical Intermenstrual Pains, 26.
Periostical Sarcoma of the Jaw, 454.
Peroxide of Hydrogen in Gastric Disturbances, 75.
Peroxide of Hydrogen, 149.
Personal Experiences in Operative Treatment of Ruptured Tubal Pregnancy, 102.
Pettenkofer's Personal Experiments with Cholera Germ, 591.
Philadelphia—The Medical and Surgical Centre of America, Carpenter, J. G., 585.
Phimosis and Circumcision, 195.
Physical Import of Variable Achromatopsia, Purdon, John Edward., 200.
Physiology of the Heart, 620.
Physiological Action of Massage upon Human Muscle, 676.
Piperazin, 433.
Placenta Prævia, 108.
Plain words on Glaucoma, 390.
Pleurisy, Treatment of, 440.
Pneumonia: Gall-stones, Robison, John A., 287.
Points of Similarity between Us and Homœopathic Physicians, Roberts, John B., 813.
Poisoned by Strychnine, 432.
Portable Combined Optometer and Opthalmoscope (Opthalmometroscope), Moon, Ropert C., 212.
Position of Strontium in Therapeutics, Shoemaker, John V., 757.
Post-Operative Intestinal Obstructions, 27.
Post-Partum Hemorrhage, Treatment of, 196.
Postural Pathology and Therapeutics in Obstetrics and Gynecology, Dewees, William B., 558.

Pott's Disease, Edmonson, M. M., 248.
Poultices, 77.
Practical Hints on Administration of Medicines, or Application of Remedies, 785.
Pregnancy and Ovarian Tumor, 499.
Preliminary Communication Concerning the Antiseptic Value of Phenocoll Hydrochloride, 830.
Present Position of Gall-Bladder Surgery, 755.
Present Status of Urethral Surgery, Palmer, E. R., 329.
Present Status of Corrosive Sublimate in Surgery, Vance, Ap. Morgan, 532.
Preventable Deaths of Child-Birth, Terry, Herbert, 357.
Preventive and Curative Drinks and Medicines, 137.
Prevention and Cure of Puerperal Sepsis, 78.
Professor Liebreich on Mineral Waters, 867.
Prolapse of the Womb—From Hyperthropic Elongation of the Super-Vaginal Portion of the Cervix—Supernumerary Ovary with Ventral Hernia—Pyo-Salpingitis—Nervous Ovaries, Goodell, William, 163.
Prolapsus Vaginal, 457.
Proteolytic Action of Papoid, 705.
Puerperal Eclampsia, 392.
Puerperal Cases of the Munchener Frauenklinik, 1877-91-422.
Purification of Drinking Water by Sand Infiltration, 704.
Pulmonary Hemorrhage, 269.
Pyosalpinx, 217.

Quinine in Treatment of Wounds, 595.
Quinine Pill-Mass, 682.
Quinine Tannate, 432.

Radical Cure of Femoral Hernia, 116.
Rapid Method of Locating Intestinal Wounds, 596.
Rapid Operative Procedure as a Means of Reducing the Mortality in Abdominal and Pelvic Surgery, Cordier, A. H., 677.
Radical Operation for Umbilical Hernia, 267.
Rare Case of Injury during Labor, 423.
Rational Treatment of Puerperal Septic Infection, 262.
Recurrent Earache, 348.
Reflex Disturbances in the Causation of Epilepsy, Krause, William C., 208.
Relation of Albuminuria to Surgical Operations, 194.
Relation of Pelvic Disease and Psychical Disturbances in Women, 230.
Relation of Rheumatism and Chorea, 145.
Removal of Appendix, Death from Uræmia, 53.
Removal of Goitre, 507.
Remedial Use of Apples, 25.
Report of all Laparotomies Performed in the Clinics of Prof. Billroth during the last 25 years, 506.
Reproduction of Printed Matter, 416.
Report of a Case of Dctachment of the Ligament of the Patella—Treatment by Suture. Recovery, 961.
Resection of Left Lobe of Liver for Cancer, 28.
Rest vs. Exercise in the Treatment of Pulmonary Consumption, Mays, Thomas J., 915.
Retardation of Brain Development; Gastralgia; Defective Nutrition; Loss of Memory, Lyman, Henry M., 481.
Retention Cysts of the tubes, Treatment of, by Dilatation of Uterus, 466.
Revival of "Heatonism;" Hernial Institutes and Subcutaneous, Injection for Hernia Veritas, 95.
Rheumatism, Russell, F. H., 251.
Right Hemiplegia and Aphasia, Following Diphtheria in a Child, 114.
Ringworm, Treatment of, 139.
Rupture of the Billiary Passages in Contusion of the Abdomen, 549.
Rupture of Pelvic Abscess, 604.
Rupture of the Uterus, 142.
Rupture of the Uterus Following Administration of Ergot, Sutherland, H. H., 491.
Sacral Operations, 909.
Sarcoma—Arthritis Deformans; Cicatrix following Burn; Morabus Coxarius, Park, Roswell, 360.
Of the Breast at the age of sixteen years: Ovarian Cyst, Cartledge, A. M., 88.
Of the Jaw, Iodoform poisoning, 455.
Saturnine, Encephalopathy, 309.
Salicylate of Bismuth in Infentile Diarrhœa, 595.
Salient points in Appendicitis, its Diagnosis and Treatment, Hoffman, Joseph, 169.
Salol, 39.
Salycilates in Treatment of Pleurisy with Effusion, 676.
Scarlet Fever, 714.
Senile and Secondary Cataracts and their Treatment, Jackson, Edward, 521.
Sexual Function and Insanity, Price, Joseph, (Monograph series, No. 1.), 1.
Significance of Vaginal Discharges.
Signs of Shock, 629.
Simplication of Therapeutics, 75.
Sleep and its disturbances in Children, 747.
SOCIETY REPORTS—
American Surgical Association, 938.
Clinical Society of Louisville, 59-171-298-412, 492-580 604-849.
Georgia State Medical Association, 773.
Jefferson County (Ky.) Medical Society, 689.
Medico-Chirurgical Society of Louisville, 90-254-332-368-540-821.
Medico Chirurgical Society of Louisville, 897.
Milwaukee Medical Society, 17.
Philadelphia Academy of Surgery, 691.
Philadelphia County Medical Society, 535-661.
Surgical Society of Louisville, 53-133-216-292 499-735.
Western Association of Obstetricians and Gynecologists, 371-457-496-610.
Some Reports of the Epidemic of Cholera of 1892 in City Hospitals of Altoona, Prussia, Herbst, A., 891.
Spasmodic Stricture of Oesophagus, 494.
Spastic Paralysis from Central Lesion, 412.
Special Influence of Alcohol on the Body.
Specific Urethritis in Children, 109.
Vaginitis, Cecil, John G., 410.
Spontaneous Cure of Rupture of the Uterus, 196.
Squamous Eczema, 456.
Statistical study of Mortality from Anæsthetics, 715.
Statistics on Anæsthesia, 829.
Strangulated Femoral Hernia, 449.
Sterility following Gonorrhœa, 133.
Story of the Insane, 69.
Stricture of the Œsophagus, 216-851.
Of Rectum, 298.
Of the Rectum, Mathews, J. M., 290.
Of the Tear Duct, 582.
Of the Urethra, 219.
Study of Fish Poisons, 185.
Strychnine and Digitalis in Diarrhœa, 273.
As Remedy and Prevention of Surgical Shock, Anæsthetic Collapse and Opium Poisoning, 153.
Versus Ergot in Obstetric Practice, Hall, G. V., 732.
Subcutaneous Injection of Fowler's Solution, 184.
Injections of Normal Nerve Substance in Epilepsy and Neurasthenia, 272.
Substances Incompatible with Antipyrine, 272.
Suckling and Quinine, 155.
Summary of Results in Treatment of 701 cases of Membraneous Laryngitis by Intubation, 742.
Suppurating Buboes, Injections of Iodoform Ointment in Treatment of, 789.
Suppurative Intra-Pelvic Inflammation with Specimens, McMurtry, L. S., 170.
Suppuration of Parotid Gland, 540.
Surgery of the Billiary Passages, 346.
Of the Gall-Bladder, 185-346.
Surgical Measures of Relief in Stenosis of the Upper Air Passages, Manley, Thomas H., 284.

Surgical Treatment of Epilepsy, 350.
Treatment of Stenosis of the Pylorus, 229 .
Therapy of Rectal Cancer, 508.
Suicides of Children in Germany, 910.
Suture of Tendons, Crandall, Dr. John B., Sterling, Illinois, 925.
Suture Applied to Wounds of Veins, 516.
Suturing of Divided Tendons, 649.
Symes, (W. L.) on Hicough, 555.
Symphysectomy in Man, 434.
Symptoms of Hip-Joint Disease, 715.
Syphilis and Typhoid Fever, 583.
Syphilis and Wounds, 873.

Talipes, Fracture of Acromial End of Clavicle, Double Fracture of Shaft of Femur, Hare-Lip, Park, Boswell, 83.
Technique of Supra-Pubic Cystotomy, Chenoweth, Jas. S., 126.
Tendon Reflexes, 114.
That Unfortunate "Conservative," Towler, S. S., 338.
The Advance Guard, Burr, W. H., 261.
The Law of Criminal Abortion in Pennsylvania, Bulette, Lorenzo D., 650.
Tetanus—Treatment of, 66.
Tetany as Sequela of Puerperal Eclampsia, 426.
In Children, 715.
Theory of the Phagocytes, 265.
The American Gynecological Journal, 951.
The Chicago Medical Recorder, 952.
The Relations of Operative Gynecology to Insanity, 948.
The Surgery of Childhood, 975.
The Virginia Medical Monthly, 980.
The American Journal of the Medical Sciences, 982.
Thiol in Treatment of Burns, 96.
Thoughts on General Anæsthesia,—Treatment of Accidents of Anæsthesia, Burr, Wm. H., 397.
Total Exterpation of Uterus per Vagina in Malignant Disease, 184.
Toxicity of Urine of Patients with Suppurative Affections, 676.
Transplantation of Bone, 274.
Treatment of Biliary Colic with Glycerine, Geyer, H. Reasoner, 488.
Treatment of Hemorrhoids, Pryor, Jas. E., 603;
Treatment of Inguinal Hernia, Dallas, Alex., 277.
Tropho-Neuroses, Associated with Abnormality of the Thyroid Gland, 469.
Tubercle Bacilli in Lymphatic Glands of Non-Tuburculous Persons, 591.
Tuberculosis of Intestine with Black Urine, 229.
Of Shoulder Joint; Tonsillotomy; Tuberculosis of Hip-Joint, Hamilton, John B., 122.
Tuberculous Ulcers of Stomach, 40.
Tuberculous Knee-Joint, Amputation, 898.
Tumor of the Breast, 849.
Twin Pregnancy, 489.
Two Cases of Malignant Diphtheria, Butler, Frank P., 602.

Unusual Case of Retained Placenta, Van Eman, J. H., M. D., 408.
Urgent Operations in Obstetrics, 306.
Urticaria, 90.
And Death After Ovariotomy, 435.
Use and Abuse of Trusses, Vance, Ap. Morgan, 687.
Use of Anæsthetics in Obstetrics, 229.
Use of Cocaine, The, 196.
Use of Thiersch's Skin-grafts as substitute for Conjunctiva, 914.
Uterine Polyp, 897.
Uterine Fungosities, Schooler, Lewis, 571.
Vaginal Hysterectomy for Cancer, 147.
Varicocele, 255.
In Women, 795.
Veratrum Viride in Scarlet Fever, 109.
Veritas, 95.
Vermiform Appendix Containing a Foreign Body, Found in a Hernia, 102.
Viability of Cholera Bacillus on Various Food Stuffs, etc., 623.
Vibratory Medication, 187.
Vomiting in Pregnancy, 676.
Vulvitus with "Gonorrhœal Rheumatism," 196.

Watson (Francis Sedwick) on Treatment of Bubo, 755.
What is the Sphere of the Nasal Spray? Evans, T. C., 573.
Who Owns the Prescription? 39.
Why Good Swimmers Drown, 763.
Why Should I Not Use the Forceps, 107.

Vol. LXVIII, No. 1.
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ORIGINAL ARTICLES.

A. H. Cordier, M. D., Kansas City, Mo.
A Plea for the Early Treatment of Appendicitis . . . 1

A. Lapthorn Smith, B. A., M. D., M. R. C. S., England.
Some Successes and Failures with Electricity in Gynecology 6

CLINICAL LECTURES.

E. E. Montgomery, Philadelphia.
Carcinoma Uteri 10

COMMUNICATIONS.

G. D. Todd, M. D., Milwaukee, Wis.
The Treatment of Incisions in the Abdominal Walls, and Ventral Hernia 14

H. G. Norton, M. D., Trenton, N. J.
The Aseptic and Anti-Septic care of the Lying-in Woman and New-born Child 16

SOCIETY REPORTS.

The Milwaukee Medical Society 17

Philadelphia County Medical Society—Gynecological Technique as carried out at the Gynecean Hospital 21

EDITORIAL 25

TRANSLATIONS 27

ABSTRACTS 28

THE LIBRARY TABLE 35

CURRENT LITERATURE REVIEWED 36

PERISCOPE

THERAPEUTICS 39

MEDICINE 40

NEWS AND MISCELLANY 40

ARMY AND NAVY 40

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THE
MEDICAL AND SURGICAL REPORTER.

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ORIGINAL ARTICLES.

A PLEA FOR THE EARLY SURGICAL TREATMENT OF APPENDICITIS.*

A. H. CORDIER, M. D., Kansas City, Mo.†

In selecting this important topic to write on, I am imbued with a desire not only to bring before this society my views, but to elicit a discussion as well, that the deductions may be compared with my observations, experience and understanding of the pathological history of, and the surgical procedure in the treatment of this frequent and dangerous affection. I am of the opinion that my statements will meet with a strong and vigorous opposition from some of the very best practitioners present, whose error (according to my opinion) is a mistake in the interpretation of the exact etiology and pathology of the disease, and not engendered by a desire to oppose progress or to bar the surgical relief of these cases.

All *students* of medicine and surgery have equal opportunities, in so far as the literature on this topic is concerned, to become familiar with its history and progress, and it is true in this case as in many others of a like character, that our utterances are along the line of the teachings of books we have consulted, added to personal experience.

You will find the author or teacher of theory and practice of medicine, holding what he terms a conservative position on all subjects classified as surgical. For instance, the hemorrhoid has an ointment applied, the osteomyelitic tibia has a liniment and hot fomentations for weeks, while the disease with rapid strides gains ground and undermines the general physical condition of the patient.

From a surgical standpoint, we have men who are so desirous of tabulating a vast number of surgical cases, that the patient has only to diagnose his hemorrhoid, her cystic (?) ovary, or the presence of a phantom tumor, to press the button and the surgeon will do the rest. While these declarations are a little overdrawn, both from a medical and surgical view, yet it is only by a difference in degree and not in kind that they can be called exaggerations. We have a medium in all things, both medical and surgical, appendicitis and a few other rapidly death producing and recurring processes, excepted.

The location and tendency of a disease should place the radical or conservative stamp on the procedure for the relief or cure of the same. A hemorrhage from a small meningeal vessel may cause death speedily, if not immediately controlled by rational surgical procedure. A bleeding from the nose would be passed by as a trivial affair, requiring no farther treatment than that of conservatism—let it alone and it will stop of itself.

I imagine that my position is now understood and that some of my friends present are "laying" for me.

I have heard the subject of appendicitis discussed by the most learned body of medical and surgical gentlemen ever assembled in this country—where such men as Bryant and McCormack, of London,

† Read before Kansas City District Medical Society, Dec. 8, 1892.

* Member of American Medical Association, Member of American Association Obstetrician, Corresponding Member of Philadelphia Obstetrical Society, etc., etc.

Agnew, Price, Keen, Morton and Ashurst, discussed the subject from a surgical standpoint, while Da Costa, Pepper and others, spoke from the medical side. While these great surgeons with a vast experience, as a unit, endorsed early operative interference, the equally celebrated medical gentlemen advised delays and tinkering, but all agreed that the disease was one attended with much danger, with a tendency to return, and that many of the cases required operative procedure for its relief or cure.

I shall dwell upon the anatomy of this part of our make up, only to call attention to the fact that the cæcum and the appendix have a peritoneal covering. At the same time, I want to disabuse your minds (if any so believing are present) of the possibility of doing an operation for appendicitis *extra peritoneally*.

The appendix has only a slight vermicular movement to expel or dislodge any substance once in its cavity. Post-mortem examinations and surgical operations have demonstrated that with very rare exceptions (traumatic, typhoid, tubercular, neoplastic) inflammations occurring about the head of the colon are, primarily, of appendicular origin, and that the exciting cause was some foreign body lodged in this functionless and dangerous rudimentary appendage. It is the experience of surgeons that the disease is of cæcal origin once only, in every one-hundred and fifty cases, so we can safely eliminate from the diagnosis or consideration of the pathology these exceptions by their extreme infrequency and by the fact that *they* demand the same surgical procedure up to the point of establishing a positive diagnosis.

A few years ago "*inflammation of the bowels,*" so-called, was of frequent occurrence, and "*idiopathic peritonitis*" was not rare, the causes of both being a mystery unexplained up to the beginning of the true history of appendicitis and salpingitis. Since the pathology of these two intra-peritoneal diseases has been correctly understood "pelvic cellulitis" and "inflammation of the bowels" are terms rapidly disappearing from our medical and surgical nomenclature.

A body (grape, orange or cherry seed) having once entered the appendix, let us see what takes place. The foreign body is there to stay, unless by accident it escapes, as this tube has not the power to expel it. A cherry-stone in close confinement in the narrow prison, surrounded by moisture and warmth soon settles down to business, and, as a result of its presence and pressure, an ulcer forms beneath it. As this approaches the serous covering, the ever-present pathogenic bacteria find an avenue of escape and swarm toward the peritoneum. The peritoneum with its endothelial covering, and the phagocytes at once begin an active warfare with the intruders (Metschnikoff). Breastworks are built up from the dead of the conflict, and the war goes on or, for the time, peace is declared, according to which force is the stronger.

Now, while this is taking place within the iliac fossa, the unfortunate victim is having a temperature from 96° F. to 105° F. according to the extent of peritonitis, amount of septic absorption, or intensity of the shock following a perforation. The breastwork is nothing more or less than an effort on the part of nature to wall-off and limit the destructive process that is threatening the general peritoneal cavity.

The patient has a constipated bowel from two causes, one from a drying-up or a checking of the intestinal-juices, and want of peristalsis—too frequently as a result of large and repeated doses of opium for the relief of the pain. He will have more or less tenderness in this locality, diffused or circumscribed according to the extent of the inflammatory processes within. McBurney's point is painful on deep pressure in most cases, the exceptions being where the appendix is not in its usual location. If the disease is very far advanced (I mean if the inflammatory deposits are at all extensive), you will be enabled to map out a well-marked dullness.

Your patient will go from bad to worse in this stage of the disease, or, his fever may subside, his pain *in part disappear* (tenderness on deep pressure will remain), appetite return, bowels become regular and he may be, so far as his general appearance goes, in good health.

Now let me picture to you his local condition: Nature has for the time being built up a barrier, that holds the disease in check, but this fortification, you must remember, has within its walls the original source of the trouble,—it may be a fæcal concretion, a grape, or an orange seed.

He is in danger of a relapse at any time; and each time the disease is started up anew, there is added fresh complications, the danger is increased and the likelihood of your surgery being successful diminished. His next attack may prove fatal.

The diagnosis and the history of this disease is so thoroughly understood by all that it would be useless to dwell further on this point.

In the matter of pathology and treatment, I am sorry to say, there is a want of unanimity in the profession that too often leads to dangerous delay in resorting to surgical procedures for the speedy relief of this condition.

The medical treatment I will sum up in a few words. *Of much import is the minimum of time in following out the medical course.* Salines, in good full doses, are indicated above all other remedies, as the watery action produced by the salts is a good preparation for the surgery that must follow. *All opium should* be *avoided,* as it masks the symptoms and places the patient in a bad condition for an abdominal operation. Codeia, etc., etc., may be tried. Blistering does no good, besides leaving an infected surface to cut through. Indeed any case with symptoms so severe as to require a blister is grave enough to demand coeliotomy. Hot applications add to the comfort of the patient but produce an œdematous condition of the abdominal walls and do not add to the chances of recovery. This œdema may mislead the surgeon as it gives a sense of fluctuation on examination. Large warm water enemata, to which is added a teaspoonful of turpentine, will empty the colon of feces and gas, and thereby make the patient more comfortable.

The technique of the surgical procedure must of necessity be such as to fulfill the indications in individual cases. In one case the appendix will have to be ligated and removed; in another the appendix may be found lying loose in an abscess cavity, having sloughed at its junction with the cæcum. Again you may find the appendix bound up in a mass of adhesions—the condition often found in delayed or relapsing cases.

No major operation in surgery, where it is performed early, has a lower death rate; and no capital surgical procedure has a higher mortality following it than this, if postponed beyond the safe period for operation. I say following the operation because the deaths following the operation are due, in most instances, to the fact that the patient is dying at the time the operation is performed. You cannot rescue a patient suffering with a diffused septic peritonitis, with fæcal matter or other septic material (pus) all over the omentum, mesentery and diaphragm.

Gentlemen you must operate early on these cases and your results will be attended with an *almost nil* mortality. I believe the position taken by Prof. Keen is a correct one, when he declares, that the physician and the surgeon should see the case together right along from the day the symptoms point to an attack of appendicitis.

If your patient does not improve in a few days (say three at farthest) under salines, restricted diet, etc., etc., I would advise resort to operation. Some cases die within a shorter period following the first manifested symptoms of the disease. Operate at once. *Do not delay an hour.* If the bowels do not move from the effects of the salines and the symptoms persist, even though mild, operate at once. A constipated bowel is always a bad symptom in this disease even though other symptoms point to a mild attack. If in relapsing cases (old abscesses) there is an indication of septic absorption, we have special reason for immediate operation. Cases should be operated on before a septic condition is developed. We should operate in children as soon as possible, for the disease makes quicker inroads in the young than in the adult.

I desire to lay stress upon the fact that the heighth of the temperature and the severity of the pain in these cases cannot be used as guides to point out the indications for or against an operation. The temperature may be, and in fact often is, subnormal, especially in the acute perforative cases. The pain is often masked by large doses of opium.

If you decide to wait at the solicitation of the patient or of the family, watch closely for the advent of alarming symptoms and insist on an operation the moment such are observed. I do not advise procrastination but we must consult the wishes of the patient and abide by his decision, even against our own better judgment.

The surgeon who undertakes abdominal work should be familiar with all the complications liable to be met with in this locality, and quick in his dealings with the same. The disease may have produced such wide-spread death of the intestines that an extensive resection and anastomosis may be necessary.

Unless the surgeon has by constant study, experimental work and operative experience made himself acquainted with all these details he will find his inventive resources taxed to the uttermost to meet unlooked for complications.

The diagnosis of inflammatory disease at the head of the colon by the painstaking general practitioner, in the great majority of instances, will be found to be correct and the only point of disagreement with the surgeon will be the pathology and, occasionally, the propriety of surgical treatment. This disagreement will persist so long as there exists a division of opinion on the point of origin of the disease, that is—did the disease originate in the appendix and extend to the cæcal region, or is it primarily of cæcal origin? Gentleman, I assure you, it will be safe to say the appendix every time.

I briefly report a few cases that it has been my lot to observe, either in consulttation or as attending physician. I desire to preface the reports by the confession, that my management of some of the earlier cases now meets with my strongest condemnation, and as I recall these facts it is with a feeling almost akin to that of criminal negligence or unpardonable surgical timidity.

Case I. Miss B., age 20; German. This young lady was taken sick Feb. 28, 1887. Had a severe chill. Had a pain in right iliac fossa radiating into the right lumbar region. This pain is paroxysmal in character but she has pain all the time (this is a diagnostic symptom in excluding colic and other non-inflammatory diseases.) Has been vomiting a greenish, sour-smelling material, is sweating profusely (a bad symptom,) temperature 100, pulse 120. Bowels have not acted since 25th. (a constipated bowel is also an unfavorable symptom.) Pain on pressure over cæcum. Dullness on percussion (this is the fifth day since she first complained, and the first time I saw the case.) Has had infusion of senna with no results. I suggested an operation if *improvement did not begin soon*, (I should have said *operate at once*) at same time prescribed large doses of morphine. (This I now recognize as an agent to mask the symptoms and result in bringing about a false feeling of security in the mind of the patient and the family, and even to put a staying hand on the better judgement of the surgeon and thus cause him to delay intelligent surgery which is too often responsible for the loss of valuable lives.) At my next visit I found her as she expressed it "feeling better." March 8, or ten days since the beginning of the attack, I find her much worse. On the night of March 10, she was taken with a most unbearable pain in the region of appendix, followed by profound shock (perforation of abscess wall and escape of pus into general peritoneal cavity). She died a few hours later.

This young lady to-day, gentlemen, would be living in so far as this attack was concerned had she received the benefit of good, timely surgery. I have since operated early on very similar cases and saved them.

Case II. April 5, 1889. I saw this case in consultation. Mrs. L., aged thirty-four; mother. Three days before I saw this lady, she was taken with a chill (she had been feeling badly for several days), the temperature soon ran up to 105° F. (due to rapid absorption of septic material). She has great pain in cæcal region, tenderness *localized*. Bowels acted from effects of a dose of Epsom salts administered the day before. This was good treatment. An obscure sense of deep fluctuation is discoverable. Peculiar facial expression, seen in patients suffering with peritonitis or marked shock. I advised an operation at once, but my proposition met with a square and obstinate opposition from the uncle who had charge of the case. This was the last time I saw the case. Fifteen hours before her death she developed symptoms indicative of perforation, the shock following lasted up to her death. No one, I trust, will question the propriety of urging early operations in like cases. Any case, even the mildest, may quickly assume this dangerous character.

Case III. This case was reported soon after its occurrence, as a case illustrating the position taken by some writers, even at this date (I was of same opinion at that time), that fæcal impaction is a frequent cause of inflammatory processes in this

locality. The post-mortem a few months later revealed a cancer of the cæcum.

Mrs. H., age 30, mother. I saw this case in consultation. For some time she had noticed an enlargement in region of cæcum, movable, painless and doughy (?) to touch. Has had colic pains for a month, constipation alternating with diarrhœa. Temperature 108° F., pulse 124. Some pain in abdomen. I diagnosed the case as one of fæcal impaction of cæcum, with a mild attack of perityphlitis. I saw her a week later and found her "about the same." Entered in my record book at this time, "This is one of the cases of perityphlitis in which a delay of surgical procedure is not only justified but desirable."

Case IV. Willie K., age 20, male. November 20, 1892. I was called to see this young man in consultation with Dr. Smolt, of Nickerson, Kansas. The doctor had diagnosed the case correctly and insisted on early operation, but owing to the the fact that the patient's parents lived in Buffalo, N. Y., some valuable time was lost in getting the father's consent. At the time I operated, the temperature was 96.5° F., (please note this fact, as a high temperature does not necessarily accompany the worst form of the disease). His pulse was 55. He was hiccoughing and vomiting frequently, countenance pinched, cold, clammy perspiration all over the body. In fact, his condition was one, the outlook of which was certainly very unfavorable. Without an operation death was near at hand.

The operation was quickly performed, only twenty minutes of *anæsthesia.* An inflammatory mass as large as the closed hand was found surrounding a diseased and perforated appendix. A cherry stone was lying loose in the abscess cavity. A perforation at the junction of the appendix to the cæcum was found and left open; no attempt to remove the appendix was made. The abscess cavity was carefully irrigated and cleansed with peroxide of hydrogen, a rubber drainage tube introduced surrounded with iodoform gauze; a large opening was left through which the contents of abscess might escape.

While this operation was not an ideal one in its completeness, it was certainly good surgery as the results in the case show. The young man to-day is up and about his room. The appendix will probably atrophy, the inflammatory mass will in a great measure, be absorbed, and that locality will in all probility cease to give him further trouble. Should it threaten him with another attack, an *early* operation, before he is in the very grasp of death, shouid be performed and the mass broken up or the appendix removed. I do not think this will be necessary.

I submit to you for discussion, the following deductions:

1st. This is a disease of frequent occurrence and one attended with much danger.

2d. The disease primarily located in the appendix, may exist for months or years in a semi-latent state before well-marked or alarming symptoms develop.

3d. That inflammatory diseases located about the head of the colon, in the great majority of cases, owe their origin to a diseased, ulcerated or perforated appendix.

4th. The percentage of death from this disease will continue to diminish in proportion to the correct understanding of the pathology and the recognition of the necessity of early surgical relief being resorted to.

5th. All recurring and all well-marked cases of appendicitis should be operated on at once. This applies with special force to patients who have had a number of attacks and are contemplating a journey to localities where skilled surgical aid can not be quickly obtained.

When the soft tissues are crushed and the surgeon is in doubt where to operate, and waits for the line of demarkation to form, poultices should not be used, for they sodden and thus weaken the tissues. Hot water should be applied every hour for five to ten minutes at a time, and during the interval the part should be wrapped in hot dry cotton.

The physician may give advice on tobacco in a general way, but he will find very few patrons who will tolerate his presence professionally if he advises them to drink less coffee, to smoke fewer cigars, to chew less tobacco or to take less whisky. They think they know what is good for them better than the men who make a life-study of the causes of disease, and know why and how they undermine health and life.—*Ex.*

SOME SUCCESSES AND FAILURES WITH ELECTRICITY IN GYNECOLOGY.

A. LAPTHORN SMITH, B. A., M. D., M. R. C. S., England.

My experience with electricity in gynecology has been limited to :

1. Positive Galvano-Punctures.
2. Negative Galvano-Punctures.
3. Positive Intra-uterine Applications of Galvanism.
4. Vagino-abdominal Applications of Galvanism.
5. Intra-uterine Bipolar Fine-wire Faradism.
6. Vaginal Bipolar Fine-wire Faradism.
7. Intra-uterine Coarse-wire Faradism.
8. Vaginal Bipolar Coarse-wire Faradism.
9. Vagino-abdominal Coarse-wire Faradism.

Positive Galvano-Punctures.—I have had one very marked success with positive galvano-puncture in a case of enormous uterine polypus, in a patient who was so exhausted with hemorrhage that no surgeon would dare to give her an anaesthetic in order to remove the polypus, which was the size of a seven months' foetal head, and nearly filled the pelvis. Half a dozen positive galvano-punctures were made into the tumor as a palliative measure, with the result that the hemorrhage and profuse watery discharge were stopped, and the patient improved so much in health that she would not entertain the proposal to remove the tumor, apparently suffering no inconvenience from it. I followed her up for about a year, since which I have lost track of her. Although I employed currents of 150m., the treatment was absolutely devoid of pain.

On the whole I am opposed to galvano-puncture, having lost one case through an error of diagnosis and neglect of strict antiseptic precautions ; and having, in another, caused a good deal of suffering without proportionate results. My chief objection to it, however, is that it almost surely causes adhesion, which in case of the necessity ever arising for removal of the uterus, would greatly increase the difficulties of the operation. A minor, but still important objection to punctures is that they frighten the patient away from continuing the treatment.

I have to record one complete failure with *negative galvano-punctures* to relieve the pain of an impacted non-bleeding fibroid. The death above referred to is the only fatal or even dangerous accident I have had since I first began the use of galvanism.

With *positive intra-uterine* applications, on the contary, my success has been almost invariable. I have employed them in rapidly-growing bleeding fibroids, in subinvolution, in fungous endometritis, and in menorrhagia from other causes, the disease having been arrested in about 90 per cent. of the cases. Success has been due to attention to the following points :

Correct diagnosis ; the introduction of a solid or flexible sound the whole depth of the uterus ; the employment of a sufficient current strength to furnish at least 25 milliamperes to each square centimetre of surface of the sound, and the rigorous following out of the aseptic and all the minor details of the method as laid down by Apostoli One of my failures (Miss B.) to arrest hemorrhage with positive intra-uterine application of galvanism was due to the eating into a small uterine sinus with the end of the electrode, which, at that time, I was not in the habit of taking the precaution of insulating with a little wax.

This case would have been a complete success had it not been for this accident, but owing to the slight hemorrhage lasting however, two weeks I was led to class it as a failure and the uterus was removed. The patient made a good recovery and is now enjoying good health.

It is interesting to note that, although she received over 50 strong applications with the clay electrode on the abdomen, there was not found the slightest sign of an adhesion anywhere, except at a small spot at the back of the uterus where the latter had been rubbing on the brim of the pelvis.

Another failure, Miss S., was due to the condition of the appendages which prevented me from giving adequate doses. By the aid of a little anæsthetic occasionally, I was able to give her 100 applications, lasting each from seven to ten minutes and of an average strength of 100 milliamperes. The tumor was reduced in size one-fourth, the hæmorrhage was re-

duced fully three-fourths, and the patient regained her color. But her home being a thousand miles away, and as she feared that the hæmorrhage might recur when she would not be able to recur for treatment, she urged me to perform hysterectomy, which I told her was the only absolutely certain treatment that would prevent hæmorrhage returning. At the operation there was not a sign of an adhesion anywhere after 100 applications of galvanism, some of the doses going as high as 175 milliamperes. She made a rapid recovery, and is now in excellent health, performing her duties as principal of a high school where there are 600 girls. So far from the treatment with electricity making the operation more difficult and complicating it with adhesions, I felt convinced that it had placed her in a much better position for undergoing it. I certainly should have dreaded undertaking the operation while she was in the exsanguinated condition which she presented when she first came under my care. If she had resided in this city, or anywhere where she could have reached me and received further treatment in case of a return of the bleeding, she would not have required to have undergone the operation at all.

In another case of failure with the positive pole (Miss S.,) in the uterus, the patient had been sent to me with a diagnosis of fibroid, which had been made and confirmed by several leading surgeons. The tumor at first diminished in size, and the patient's general health was much improved, but after a time it suddenly began to grow again, when I sent her to the hospital for operation, at which I was present. The tumor proved to be a sarcoma of the ovary into a depression in which the uterus was imbedded, rendering it difficult to differentiate the one from the other by digital examination.

A brilliant success, however, was a Mrs. P., who had bled so much that, as a last resort, a leading gynæcologist in the city had packed her with ice. I kept her tamponed with alum tampons for a few days until I could improve her enough to be carried to my office. The introduction of a soft bougie to measure the depth of the uterus caused the blood to pour out on to the floor of my office before I had time to catch it. Her skin was waxy and absolutely colorless. After twenty or twenty-five applications her periods became perfectly normal, and have remained so for several years. I took the trouble to hunt her up a few months ago to present her to the medical society, and found that she had been in perfect health ever since, suffering no inconvenience whatever from the tumor which had been reduced fully a third. This woman would surely have died whether she had been operated on or left alone; in fact, no one would have dared to operate on her in the almost pulseless condition in which I first saw her.

Another brilliant success was Mrs. S., an artist by profession, who had almost become a hopeless invalid, but, who after only fifteen applications of galvanism was restored to almost perfect health, and has not lost a day from her work since. The tumor was reduced a third in size, and she suffered no inconvenience from it whatever. It is now three years since the last application, and she has had no relapse. Another successful result from the positive pole in the uterus was Miss A., chambermaid in the Windsor Hotel, who was about to abandon her occupation when she came under my care, but after fifteen applications was able to resume her work, and has been well ever since—now two years ago.

Mrs. X., wife of a physician in this city, used to bleed so severely that she had to pass a week out of every month in bed, with her feet raised and her head low, and even then she would faint repeatedly; after ten applications was so much improved that she was no longer obliged to remain in bed at all. I subsequently curetted the uterus and repaired the lacerated cervix and perineum, and now she is enjoying very fair health.

Miss A., was sent to me from Scranton, Penn. She was an expert stenographer, but was unable to keep a situation because for ten days in every month she had to remain in bed. If she attempted to remain up, large clots would come away, so that she would have to stand in the office over a newspaper and allow them to fall on it, besides which she would saturate a dozen napkins a day with the serum. After 100 applications her periods came down to three days, and she is now married.

Mrs. P., from a distant city had to be carried into my office, but was able to walk a distance of two miles after having

received ten applications. She received in all 50 applications, the last one three years ago, she has remained well ever since.

One of my most recent successes is Mrs. F., of this city, who was affected with severe hæmorrhages, and who after about 20 applications was relieved of all her symptoms. There has not been any return of the hæmorrhage since leaving off the treatment three months ago.

Two cases which were sent to me as bleeding fibroids were not cured by electricity, as they subsequently proved to be, one sarcoma, and the other epithelioma of the uterus.

In both, however, the hæmorrhage was arrested, although one has since died and the other will soon die.

All the cases so far mentioned, with the exception of the last two of cancer, were cases of bleeding fibroid tumors of the uterus and they were all in women under 40 years of age. They were all treated with positive intra-uterine applications. In another case of a woman, Mrs. N., who had been bleeding steadily for a year, and who had also a bad lacerated cervix, there seemed no doubt about the cancerous nature of the disease. Hæmorrhage was permanently arrested by only half a dozen applications of the positive pole. My success in this case led me to entertain the hope that we had at hand a cure for uterine cancer, but in another case far advanced the treatment proved an utter failure. If it is to be of any use the cases must be seen early.

Besides these 15 cases I have treated about 45 cases with the positive intra-uterine pole, for other conditions, principally for fungous endometritis, endometritis with hæmorrhage at the periods, but also in cases of subinvolution. Of these 45 cases I can only recollect two failures to arrest the hæmorrhage. In every case the depth of the uterus was diminished. There has been no failure to produce this result. In one case the effect was especially gratifying. An old lady with her womb lacerated, large and heavy, hanging between her legs, to whom I administered about half a dozen positive applications followed by coarse wire faradism. The womb became reduced to its normal weight so that a little toning up of the supports rendered them able to keep the organ within her body, where it remained till her death, two years later, from apoplexy.

The following cases were treated with *negative intra-uterine galvanism*, and gave me some of my most brilliant results.

Miss W., who had suffered agony for several years from pressure on the urethra and rectum, and was obliged in consequence to abandon her occupation as cook in a gentlemen's family, was completely cured four years ago by about 20 applications, so that she was able to start and carry on sucessfully a large boarding house for which she now does both the cooking and the catering. The last time I examined her the tumor could not be felt.

Mrs. D., from a town near here, had suffered for 8 years from pressure symptoms, but not from bleeding, from a large intestinal fibroid. Her health had been completely broken down by the large quantities of morphine which her suffering necessitated. One hundred applications cured her, so that two years afterwards her physicians wrote me that the tumor had entirely disappeared. Although it is now over four years since her treatment, menstruation is regular and painless, and she continues in excellent health.

Miss McP.,· suffered so much from pressure symptoms that she was obliged to give up her situation as cook. Her tumor was growing rapidly. After about 20 applications the growth was arrested, and she felt so well that she entered the writer's service, where she has ever since, now five years, performed her duties without interruption.

Mrs. D., from Holyoke, had a large submucous fibroid which was growing rapidly. After the first application there was no increase, while after the tenth there was so much diminution in the size of her waist that she decided that she was cured, and started for home. She was taken with severe expulsive pains on the train, and soon after reaching home she gave birth to a broken down fibroid about the size of a seven months child's head, since which she has enjoyed good health.

In half a dozen other cases of fibroid the pains and pressure symptoms were fairly well relieved by negative applications.

In the treatment of dysmenorrhœa I have had some very gratifying results, so that I can say that I know of no treatment except removal of the appendages which can offer such good prospects of relief. Since

reporting nine cases of dysmenorrhoea cured by negative galvanism, I have added half a dozen more to the list, while only one has utterly failed to be relieved, and one relapsed until she received two more applications, since which she has remained well.

With sacro-abdominal application of galvanism I have not had any marked success, although I have only given it a limited trial.

With *vagino-abdominal applications,* I have seen the tender, enlarged and prolapsed ovaries become lighter, painless and to disappear from Douglas' cul de sac. I have also on three occasions seen the uterus, which was previously bound down and retroverted, become movable. While I can hardly believe that organized bands of adhesions can be dissolved, or, in the words of the electro-therapeutical poet, "Melt away like snow before the summer sun," I can believe that such a powerful alterative may so improve the circulation in the lymphatics that soft or liquid exudations may be reabsorbed.

With *bipolar fine-wire faradism,* I have treated at least 50 cases, principally of inter-menstrual pain, due to neuralgia of the uterus and ovaries, and of varicocele of the pampiniform plexus. I have sometimes used it in some of the above mentioned cases of fibroid in order to establish tolerance for the galvanic current. For any kind of pain in the pelvis, in which no organic disease of the uterus or appendages could be felt by careful bimanual examination, I have found bipolar faradism invaluable.

Where it has failed to relieve, subsequent operation has revealed undiagnosed pus in the pelvis, for which, of course, there is only one treatment, and that is evacuation. I have sometimes used it in the uterus, but most often in the vagina, which seems to be much safer and almost as effectual.

With *coarse-wire faradism* I have also had very satisfactory results in cases of retroflexion due to atony of the uterus and also in cases of prolapsus. In one case of procidentia of a very advanced type it failed to keep the uterus up ; but in at least a dozen other cases of more moderate degree in which the uterus was not much enlarged, a few applications of coarse wire faradism toned up the relaxed vagina and perineal muscles, especially the levator, and that the women have declared that they were greatly relieved, and some of them have even returned each succeeding summer during the hot weather to have their pelvic contents toned up.

The subinvoluted uterus, like the uterus at the end of pregnancy, responds very readily to the faradic stimulus, and any one who has employed coarse-wire bipolar faradism in the vagina cannot have failed to notice how the electrode is grasped by the sphincter of the vulva and drawn up by the levator ani.

Vagino-abdominal coarse-wire faradism I have used several times with the view of shortening the round ligaments, as it has been demonstrated that the freshly removed round muscle will, when stimulated by the faradic current, lift a weight of a pound and a half off the table. But the result was too slow in coming, so I was tempted to perform Alexander's operation instead.

As this paper is entitled some "successes and failures with electricity in gynecology," I have not given a very detailed account of every case. It is rather a general stock-taking after nearly five years experience with it.

As far as I know the harm I have done with it has been limited to one death and two miscarriages all due to mistakes in diagnosis. I believe that I have saved at least 20 women from operation and three or four from death, while I am absolutely positive, certain electrophobists to the contrary notwithstanding, that in those whom I treated with electricity, but whom I did not save from operation, the operation was in no way rendered more difficult thereby, but in all probability their chances were improved, all of them having made easy recoveries.

I think it is unjust and unfair for my friend, Dr. Joseph Price, and others to lay all the blame of adhesion on electricity when they know as well as I do that these complications are met with in cases which have never been touched with electricity, while on the contrary they know that cases which have been treated for a year with electricity were found at the operation to be absolutely free from adhesions.

A hot infusion of capsicum is recommended for hiccough.

CLINICAL LECTURES.

CARCINOMA UTERI.*

E. E. MONTGOMERY, M. D., PHILADELPHIA.†

Ladies and Gentlemen:—I show you a patient thirty-five years of age, native of Russia, who, unable to speak English, affords us a very imperfect history. She had none of the diseases of childhood, and enjoyed excellent health until after the birth of her last child; married at eighteen, has had eight children; five died in infancy, three living and healthy. All her labors were normal and she has had no miscarriages.

After the birth of the last child, menstrual periods occurred at intervals of two weeks; flow was profuse, no pelvic pain. Nine weeks ago she was so weak as to be unable to go about. She at present complains of intense pain along the thighs and of headache. The other symptoms are gastric; burning sensations in the stomach and along the œsophagus; flatulence, vomiting, bowels obstinately constipated, urine negative. She has a profuse watery discharge from the vagina, greenish in color, and with an exceedingly offensive odor.

Now the history of this patient, her age—thirty-five years—married at eighteen years, suffering for three years from profuse menorrhagia, and profuse hemorrhage occurring as often as every two weeks, severe pain and profuse offensive discharge. These symptoms would at once cause you to suspect some serious diseases of the genital tract. In examining the patient we find the vagina filled up by a mass, projecting into it from the right side, and anteriorly a large mass which on its lateral surface is smooth in outline; as we pass toward the central part it is quite friable. This mass is found to fill up the pelvis, pressing upon the surrounding organs and is so friable if we make much pressure against it, it would break down and hemorrhage would result. We have here a degeneration which is without question malignant.

Diseases of this kind are much more likely to be found in women of an older age It occurs more particularly near the climacteric, or immediately following it. It is a condition which is found with greater frequency in women, who like this one, have borne a number of children. While it occurs with greater frequency between the ages of forty or fifty, its presence should not be overlooked when symptoms such as these present themselves in young women, as I have seen a patient in this house dying with cancer who was but twenty years old. As we have already said, it occurs more frequently in women who have borne a number of children The cervix is the usual seat of the disease. We can readily understand why the woman who has borne a number of children and has consequently suffered lesions during parturition, which have been but partially repaired by the processes of Nature, should be more likely to suffer from such degenerations. Tissue of low vitality, subject as it is to frequent irritation, is likely to take on malignant change.

Because the disease, however, occurs so frequently in women who have given birth to children, and is in the majority of cases found in the cervix, it should not be forgotten that it may occur in women who have never been pregnant, and is also found in the body of the uterus. I had a patient in this house, about fifty years of age, suffering from hemorrhage, who had an unruptured hymen and yet the entire cervix was destroyed by an epithelioma. In about two per cent. of the cases the disease is found in the body of the uterus. The disease begins in the glandular tissue of the organ, and subsequently invades by processes of infiltration the subjacent muscular structure, until the entire organ may be involved.

The symptoms of the disease will depend much upon its form. Thus, in the epithelioma we may have extensive cell proliferation, formation of large masses, oftentimes cauliflower in character, which may fill up the entire vagina, are exceedingly friable, breaking down under the touch, and bleed from the slightest irritation. In these cases pain is not usually a marked symptom. Some patients indeed, go through the entire progress of the disease without suffering from pain. In the variety known as scirrhus, there is a firm infiltration of the

* Delivered at the Phila Hospital, November 5th, 1892.

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walls of the uterns, giving rise to a hard, dense mass. In these cases the pain is intense, due without question to the pressure upon the involved nerves; one of the earliest symptoms is hemorrhage. This may be an increase of menstrual flow, a slight bloody discharge in the intervals, or a return of bloody flow after the establishment of the menopause. The occurrence of hæmorrhage should always be considered a suspicious symptom, indicating the necessity of careful examination of the genital tract to determine its cause. While hemorrhage at the climacteric, or following it, is usually regarded as a suspicious symptom of malignant disease, it does not always necessarily follow that such disease is present. I remember some years ago being called in consultation to see a patient forty-five years of age, who had had two children, was suffering from irregular menstruation with severe pain. Examination disclosed the cervix apparently normal; the mere introduction, however, of the sound into the uterus was followed by profuse flow. Her age, association of pain, and hemorrhage, led me to believe that she was suffering from malignant disease of the mucous membrane of the body of the organ. The removal of the uterus was advised and was subsequently done by the vaginal method. Upon opening the organ I was much discomforted to find that the hemorrhage had resulted from a submucous fibroid the size of a hickory nut in the wall of the fundus. For this reason I say that such patients should be subjected to a very careful examination to determine certainly that the disease is not malignant. Hemorrhage may also result from a papillary growth of the uterine mucous membrane, which, while it is not malignant, may possibly be a forerunner. These patients usually, however, are cured by careful curetting of the cavity.

Another constant or early symptom of malignant disease is offensive discharge. This, not unfrequently, is thin and watery, giving an odor of decaying flesh. It is very noticeable to the patient and those who may come in close proximity to her. The discharge arises as a result of a breaking down of the infiltration, and taken together with hæmorrhage and with pain, is a very reliable symptom. It should not be forgotten, however, that the patient may have an abortion and retained placenta, or portions of the decidua which may disintegrate and undergo putrid decomposition, causing an offensive odor. Then, too, fibroids of the uterus may have lost their vitality, become sensibly separated from the wall of the organ to such a degree as to slough, giving rise to thin, watery discharge, to an odor of putrid flesh, so that even this symptom requires careful physical examination before it can be considered as a pathognomonic sign.

In enumerating the symptoms, then, of cancer, we have: hæmorrhage, rarely absent; offensive discharge, usually present; pain of a radiating character, sharp, lacinating, sometimes felt in the sacral and lumbar regions, extending down the thighs, not necessarily a constant symptom.

After the disease has continued for a length of time, as a result of hæmorrhage, or the loss of rest, and pain, with the drain from the discharge and the absorption of septic material, the patient becomes anæmic, pale, emaciated, presents a sallow, cachectic appearance, the result of septic absorption. This cachectic appearance, of course, may be associated with other conditions, as loss of blood, from presence of fibroid, severe hæmorrhage following an abortion, with retention of decomposed clots or placenta and the absorption resulting from it. As the disease pursues an uninterrupted course, we find it extending from the structures first involved to those in the immediate proximity, involving one or the other lip of the uterus, extending into the vagina, infiltrating its walls and subsequently in processes of ulceration, opening either into the bladder or rectum, or in some cases into both, producing thus a cloaca into which urine, feces, and discharges mix, giving rise to the most offensive odor that could be possibly imagined.

As the disease progresses it is rare to find the peritoneal cavity opened by it, for the reason that Nature interposes a barrier of lymph, the parts become thickened and the cavity thus shut off.

In a patient with the disease so extensive as the one we have before us, we will ask, "What shall be done?" So far as any attempt at radical cure, nothing. The disease has extended beyond the uterus into the pelvic structures to such a degree that no operation could accomplish its entire removal. Any operation consequently is worse than useless. It is not right to subject the pa-

tient to a dangerous operation which affords no hope of radical cure. In this patient, the use of the curette, cutting away the diseased tissue, will decrease for a time the unpleasant odor, might possibly arrest hæmorrhage, but upon the denuded surface thus formed, the cancer cells would implant themselves, infiltration would be more rapid and the death of the patient occur sooner than if we did nothing. The use of the cautery or caustics, after curetting in some cases, is attended with very beneficial result, patients recovering for a time, appearing in fairly good health until the disease again has extensively developed.

There are other cases, however, which may appear fully as promising at the time of operation, in which the method of treatment seems, if anything, to hasten the progress of the disease. Where the disease involves the anterior lip, and extends from it to the vaginal wall, we not unfrequently find the infiltration pressing upon the orifices of ureters, giving rise to difficulty in passage of urine. Its accumulation consequently in the kidneys causes the development of an uræmic condition which hastens the fatal termination, and during which, as a result of its retention in the blood, the patient is much less cognizant of pain. In this respect it is a rather satisfactory form of progress.

In this patient nothing remains but to make her as comfortable as can possibly be done during the remainder of her life. In order to do this we will direct that anodynes shall be given, to give her rest at night and ease her pain. In giving anodynes, it is well enough not to begin with opium or morphine, but rather to save these agents for a later period, giving in their place a palliative, as hyoscyamus, chloral, and the less active anodynes, not to save the patient from the formation of the opium habit, but rather to economize the effects of that drug, so that when she reaches a period or stage of the disease in which it is needed, we may have it still to resort to.

Locally, patients should be given vaginal enemas, bichloride or acid sublimate solutions, solutions of sulphurous acid or carbolic acid, or what is more effective probably than any, a solution of thymol, the latter agent for the purpose of removing the offensive odor. The patient should be kept in a room that is well ventilated, and in the late stages of the disease, where the odor is marked, she should wear at night a skirt of oil cloth or rubber pinned about the waist in order to prevent her being offended by the exhalations rising.

We have already spoken of the method of curetting the uterus and the subsequent application of caustic. This treatment was suggested by Sims but later developed by Van deWarker. It consists in cutting away as much of the diseased tissue as possible, drying the surface and controlling hæmorrhage by packing the vagina with cotton saturated with Monsell's solution. At the end of twenty-four hours this packing is removed, the surface cleansed and then packed with cotton saturated with a solution of chloride of zinc, varying in strength according to the extent of the disease. When there is quite a thick wall, affording opportunity for extensive slough, without destroying immediate structures, a saturated solution may be used. Where the intervening layers are thin, it may be used in the strength of six drachms to the ounce. In using the caustic it is very important to carefully protect the healthy tissues and walls of the vagina by covering it with an ointment consisting of two drachms of bicarbonate of soda with an ounce of cosmoline. The cotton tampons wet with a solution should be carefully squeezed out so as not to have any superfluous fluid to run over the pelvic tissue. A tampon of cotton should be applied below it and then one wet with a saturated solution of bicarbonate of soda. Bicarbonate of soda decomposes chloride of zinc and thus destroys its caustic action. Even with these precautions, however, unless very great care is taken, the superfluous fluid will run over the vagina, giving rise to considerable cauterization of the outlet of the canal. A case occurred in the practice of a gentleman of this city, in which the application of this caustic resulted in a slough of vaginal walls, causing an opening into the bladder and rectum and with an extensive sloughing of the diseased tissue of the uterus. The patient recovered from the operation with a recto-and-vesico-vaginal fistula. The tissues contracted, making the canal so small that it was impossible to dilate it sufficiently to repair and close these fistula. The condition of the patient consequently was a deplorable one; one in

which death would have been preferable.

In the patient we have before us, I do not consider that this plan of treatment would be applicable, for the reason that the intervening wall between the bladder and vagina would be opened, and possibly that also of the rectum. The tampon should be removed at the end of forty-eight hours or earlier, if there are indications of developing sepsis; the patient kept in bed and douches used twice a day subsequently until the slough has completely separated and the surface granulated. Throughout the tenth day it is quite important to have the patient watched carefully for fear that hæmorrhage may result through opening of large vessels from the slough. If there is a tendency to bleeding, the nurse should be directed to use a vinegar douche and this followed, if necessary, by a douche containing the per sulphate of iron. If we are called to see a patient before the disease has extended outside the uterus, or while it is still confined within the organ, whether involving the cervix or the body, the operation, above all others, to be considered is the extirpation of the uterus. To determine the condition, however, and, whether such an operation is suitable, we should not be content with vaginal examination alone, but should always examine by the rectum. By so doing we are enabled to ascertain the extension of the disease to the posterior surface of the broad ligament, the infiltration that would thus result, nodules that may be present and the movability of the uterus.

It is true that operations are done for amputation of the cervix where malignant disease is confined to one or the other lips of the uterus; but when we consider that the disease extends to a greater degree along the mucous membrane, we can readily understand that there may be cells situated above the point at which amputation takes place, which will be the nidus for subsequent development of the disease.

It would seem that the removal of the uterus is just as certainly indicated in cancer of any portion of it, as would be the removal of the entire breast where one lobe of this organ is the seat of malignant disease.

With the importance of rectal examination in such cases, I was very thoroughly impressed some years ago, upon examining a patient whom I had already advised to undergo vaginal hysterectomy. At a second visit she informed me she had considerable irritation of the rectum. I made an examination and found extensive ulceration and infiltration of its wall without any direct indication or connection with disease of the uterus. The presence of this condition in the rectum, precluded, of course, any operation. If I had neglected this, the patient might have been subjected to a hysterectomy, and the rectal trouble overlooked. The extirpation of the uterus by vagina is not necessarily a very dangerous one. In the hands of such men as Martin and Leopold, the mortality has been reduced to but little more than five per cent. The operation is one, in favorable cases, that can be very readily and speedily performed. It consists in making an incision behind the cervix, which is firmly held by a Volsellum, the tissue pushed off in front, and behind, until the peritoneum is reached. The vagina is opened posteriorly and a sponge attached to it to hold up the intestines and prevent the peritoneal cavity from being soiled with blood. The opening is then made through the peritoneum anteriorly, leaving the organ attached by its broad ligaments. Upon the finger, one blade of the modified Greig Smith clamp is passed behind the broad ligament. The other blade is passed in front. These are locked and the external end screwed down, until the broad ligament is thoroughly compressed. This ligament is then cut off close to the clamp, the uterus dragged down, the clamp applied to the opposite side and it cut off as well. The clamps are now held one on either side of the vagina and the sponge withdrawn from the cavity. The vagina may be irrigated, washing out blood, and after drying it, an iodoform gauze tampon is introduced, carrying the gauze carefully upward on either side over the end of the clamp, in this way protecting the intestines from contact with it. The end of both clamps is thus covered, the vagina pretty comfortably packed with gauze and the patient placed in bed. They usually suffer very little inconvenience, and it is but rare that an anodyne is found necessary. The clamps are removed at the end of twenty-four hours; the gauze packing in four or

five days. Some plain gauze or antiseptic cotton is kept over the vulvar outlet to receive the discharges. Usually the discharge is pretty free for the first twenty-four or thirty-six hours. In performing this operation it is very important not to injure the bladder when we cut around the uterus, and particularly important to avoid injury of the ureters, either with the knife or the clamp.

COMMUNICATIONS.

THE TREATMENT OF INCISIONS IN THE ABDOMINAL WALLS, AND VENTRAL HERNIA.

G. D. LADD, M. D., Milwaukee, Wis.*

In closing a wound in the abdominal walls three important points should be considered, viz.: the prevention, if possible, of adhesion of adjacent abdominal viscera to the abdominal parietes; the prevention of ventral hernia; the prevention of stitch abscess and wound infection.

The frequency with which adhesion to the abdominal wound follows laparotomy cannot be accurately determined, but from our knowledge of the behavior of the peritoneum, and from autopsies in cases which have previously recovered from such operation, we can reasonably conclude that it is a very frequent or perhaps usual occurence. That such adhesions are usually productive of no harm or discomfort is attested by the large percentage of cases in which the clinical result shows freedom from all pain or discomfort at this point. It may even be claimed that such adhesions are an advantage in rendering more secure union of the wound. A careful consideration of the condition which obtains where ventral hernia exists shows, however, that such is not the case, for they exert little or no influence in preventing the protrusion and a proper union of the wound is of itself always sufficient toprevent the occurrence.

Adhesion of one or more loops of the small intestine to the abdominal wall is, however, sometimes productive of great discomfort and pain, and, as it is our aim to leave the contents of this cavity in as nearly the normal condition as possible, the prevention of this complication becomes quite an important desideratum.

As any rough handling or injury to the peritoneum near the incision favors adhesion, it is important to avoid this in so far as possible. For this reason the peritoneum should be divided by a careful incision with either the scissors or a sharp knife. In using retractors, or in sponging, care should be taken to avoid all unnecessary rubbing or friction upon this tissue. Morris has demonstrated, in experiments upon animals, that Aristol dusted and rubbed upon any injured portion of the peritoneal surface is innocuous and will prevent adhesion. While its use will not become general in closing these wounds it may be at times of very great service.

Ventral Hernia.—Ventral hernia, although a remote risk, has followed incisions in the abdominal walls and that sometimes in the hands of very skillful surgeons, and its consideration is a matter of importance whenever we close these wounds.

Various modes of applying the sutures have been in vogue at different times and are in favor with different operators. In the early days, and by some at the present time, all of the abdominal wall was included in each suture, and the results were good. Later and by others the sutures were made to include the skin, fascia and peritoneum. More lately the custom has been to include one or more layers in a single set of sutures, the peritoneum, muscles and fascia, and skin being sutured separately.

Whatever plan is followed it is of first importance that the fascia be securely united throughout its entire extent. Failure to properly secure this structure it is that allows a ventral hernia to occur. A good plan to follow is to include the peritoneum, singly, in a continuous suture, next including the muscle and fascia in

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a set of interrupted sutures, and lastly suture the skin separately.

When ventral hernia exists as a result of an incision through the abdominal walls it is because there has been failure to secure complete union of the fascia. The comparatively rare occurrence of this complication is due to the fact that a suture passed through the muscle usually includes the fascia, or it is included in and held by cicatricial tissue. The treatment then, for ventral hernia consists in dissecting out the edges of the fascia, in one or more layers according to its anatomical conformation at the point of incision, and approximating them firmly by frequent interrupted sutures, as many as three to the inch. The edges of the fascia will be found to have retracted and curled up, often being obscured by cicatricial tissue. Frequently a large pocket will have been formed by a gradual separation of two of the layers of muscle, and the surfaces, being constantly subjected to slight friction become infiltrated and smoothed until a fair substitute for a serous surface is established, In proportion as these surfaces have become old and thickened does it become difficult to occlude the cavity. It may be necessary to freshen the surfaces where they will be included in the sutures which close the abdominal wound, thus securing immediate union at this edge. A counter-opening, leading to the surface, at the outer edge of the pocket, will allow of its being packed and subjected to such subsequent treatment as may be necessary.

Prevention of stitch-abscess and wound-infection.—We here touch upon a very broad and interesting subject, but shall not enter into it except to consider a few points lately demonstrated as necessary in order to secure uniformly good results. For the sterilization of instruments and silk a high degree of heat is the one means upon which we can rely. The next factor to be eliminated, taking the steps of an operation in order, is infection from the skin. All are familiar with the methods employed for this purpose and probably, also, with the fact that no matter how carefully and thoroughly they are resorted to there is frequentiy a failure to prevent slight suppuration around the stitch, even when the needle and material used for sutures are aseptic beyond suspicion.

The ordinary cleansing and chemical disinfection, if thoroughly carried out, removes or destroys the many bacteria that are upon the surface of the skin.

Welch, however, describes a coccus often seen by others and identified as the staphylococcus pyogenes albus, but which he individualizes by naming it the staphylococcus epidermis albus, found in the deeper layers of the skin, and which is not reached or destroyed by any known means of cutaneous disinfection save the application of heat.

To obtain cultures of this coccus, silk, proven by previous test to be aseptic, is drawn through skin, which has also been disinfected so that scrapings from its surface give negative results, and placed in a culture medium. That this coccus is productive of only slight and limited suppuration about the stitch is proven by the very limited amount of disturbance which exists where it alone is found. It, however, interferes with the integrity of a wound and may thus allow of more serious disturbance.

In cleansing the hands of the operator and assistants, the prolonged soaking and rubbing of the cuticle in water as hot as can be borne, thus softening and removing the outer layers of epithelium and at the same time applying heat, will greatly aid in rendering the surface germ-free. The method of chemical disinfection which seems to be the most thorough is, after the above cleansing, to soak the hands in a warm saturated solution of permanganate of potash, rubbing them thoroughly; placing them in a warm saturated solution of oxalic acid until completely decolorized; immersing them in a strong solution of corrosive sublimate thereafter.

As living tissues are known to resist the development of bacteria, or to a certain extent dispose of them, it becomes very important that the integrity of the tissues be not interfered with. For this reason, in making an incision the tissues should be nicely divided with a sharp knife, and tearing or stretching avoided. The use of chemical disinfectants within a wound has been found to cause a superficial necrosis which favors, or forms a medium for the multiplication of pyogenic bacteria and should be avoided. In tying sutures care should be taken to avoid constricting the tissues so as to interfere with their nutrition.

In choosing a material for sutures silk seems to answer the requirements better than any other substance. It can be quickly and easily sterilized by heat at the time of operation, undergoing thereby no change in size, strength, or flexibility.

Klemm, by repeated experiments, has demonstrated that catgut can be rendered germ-free and kept so, but that, buried in a wound, this softening non-resistant substance is a favorable medium for the growth of germs. In silk, buried in like manner, few or no germs were found.

The peritoneum then should be closed with a continuous suture of fine silk. The fa-cia and muscle by an interrupted suture of medium sized silk. It has been recommended that the use of skin sutures be abandoned, as excellent coaptation can be obtained by subcutaneous sutures. If skin sutures are used they should be removed early. The usual dry aseptic dressing retained by plasters or a bandage is all that is required.

THE ASEPTIC AND ANTI-SEPTIC CARE OF THE LYING-IN WOMAN AND NEW-BORN CHILD.*

H. G. NORTON, M. D., Trenton, N. J.

Inasmuch as it is our duty as physicians to use every known means to limit maternal and infant mortality during the puerperal period, I shall briefly give my views of the proper conduct of a case of labor and the early care of the child, hoping to bring out valuable discussion on this important subject.

1st. The physician himself should be clean and wear clean clothing. I like to remove the usual coat and put on one of clean white linen. The hands, as a ready means of introducing infection, need special care. It is sufficient, I think, to pare and clean the nails carefully, then wash thoroughly with hot water and soap, using the nail brush vigorously, followed by the free use of a germicide solution and the nail brush.

A very thorough procedure would be after the method of Prof. Keen, viz.: wash the hands with soap and hot water, using the nail brush, then wash in alcohol, then in a permanganate of potash solution, which is to be washed off in an oxalic acid solution. To complete all dip the hands in a bichloride solution.

2nd. Not less important than cleanliness on the part of the physician is a clean nurse. The nurse should wear cotton dresses, not woolen; her hands should be as scrupulously clean as her whole attire. Often, I think, cases of puerperal fever are due to an unclean and untidy nurse rather than to any want of carefulness on the part of the physician.

Many people expect a nurse to aid in the work of the house and of the family, in addition to her care of the mother and child. This we should discourage and explain our reasons therefor to our patients.

As to the woman about to be confined, she should be regarded as a surgical case; be made absolutely clean and prepared several days before the expected confinement by soap and water cleansing of the vulva and a daily immersion bath. Upon the first manifestion of pains give an enema to empty the lower bowel. This removal of feces from the rectum facilitates the birth of the child, makes it pleasanter for the physician, and removes a great source of danger of infection from mother and child; afterward the genitalia must be rendered aseptic by the use of antiseptic solutions.

3d. Give a copious antiseptic vaginal douche and cover the vulva with an antiseptic pad secured in place, then see your patient placed in a clean bed. Here, if it were possible, it would be well to have a cot purposely for confinement, from which the woman could be removed and placed in her bed at the termination of the labor. In any event we must see that the bed is clean and fresh and allow no sheets upon it that have not been laundried since used. Rubber obstetric pads are a great convenience for use during delivery and prevent soiling the bed. Keep the vulva covered with a clean bichloride napkin during labor and after.

When the patient has been properly arranged the physician should make a preliminary vaginal examination after thoroughly disinfecting his hands. As few ex-

*Read before the Mercer Co. Med. Soc., Nov., '92.

aminations as possible should be made. We should endeavor to be guided by external abdominal examinations as far as can be, and even by sight, during the progress of the head, rather than make frequent digital examinations.

After delivery the emptied womb should be regarded as an open wound and treated as such. Examine the perineum at once, and if lacerated repair it; keep the vulva covered with an antiseptic napkin during the continuance of the flow. Don't allow the use of any old pieces of muslin that happen to be at hand for this purpose.

We naturally next turn our attention to the child, and after announcing its sex and assuring the mother that it is not marked, we proceed to take such care of it as will prevent septicæmia from the cord or purulent ophthalmia. Often, I fear, when a child dies within a few days after birth, we complacently give marasmus as the cause, deceiving the parents and still worse ourselves, when it was often, doubtless, due to septicæmia, due to improper care of the cord. Where an infant has fever it is probably septic. Don't tie the cord with any chance piece of string but with a proper ligature which you have with you. We should endeavor to have a dry, rather than a moist gangrene of the cord, to attain which we would not of course allow the nurse to wrap it in a greased rag, but envelop it carefully in an antiseptic dressing of either borated or salycilated cotton, or gauze, and dress it daily; over all should be a soft flannel binder.

We should endeavor to prevent ophthalmia neonatorum by attention to the child as soon as born. Its eyes should be wiped out at once and one drop of a two per cent. solution of nitrate of silver dropped in each eye, after the method of Credè. Where the vagina is carefully syringed before labor infection is less likely to occur.

Not less important is it to know that our forceps and other instruments are antiseptic before using them and there is usually time to make them so. I would boil all instruments likely to be used for five minutes in a clean covered pot, containing a tablespoonful of washing soda to the quart. The use of the soda prevents instruments from rusting, a good thing of itself.

Our obstetric satchel should contain a rubber perineal operating cushion, obstetric forceps, needles and holder, syringe, chloroform, ligatures, antiseptic gauze, catheter, boracic acid, tincture of iodine, and creolin. To properly conduct a case of labor to a successful issue requires the highest skill, tact and knowledge, besides it is very exhausting to the attending physician. In view of these facts we should charge a fee commensurate with good service and make the service worthy of the fee.

SOCIETY REPORTS.

THE MILWAUKEE MEDICAL SOCIETY.

Meeting of November 22nd, 1892.

Dr. G. D. Ladd, Milwaukee, read a paper entitled "The Treatment of Incisions in the Abdominal Walls and Ventral Hernia."(14)

DISCUSSION.

Dr. H. M. Brown: I must take issue with Dr. Ladd as to the cause of ventral hernia following incisions in the abdomen.

He says that ventral hernia as a sequence of operations on the abdominal wall is oftenest due to incomplete coaptation of the edges of the fascia. I would suggest that the experience of a large number of surgeons as collated within the last six months has gone to show that the most frequent cause of ventral hernia, following wounds of the abdominal wall, is the use of the drainage-tube or drainage. The fact that in one hundred and twenty-six consecutive operations in which there was no attempt to bring into coaptation the edges of the fascia, there was no case of ventral hernia, would seem to prove beyond any question the truth of the statement, that ventral hernia is not due to incomplete coaptation of the edges of the fascia. Or, at least, that the question of coaptation of the fascia itself had but a small share in the formation of ventral hernia. There are a great many other causes of

ventral hernia than the lack of coaptation of the edges of the wound; *imprimis*, the question of ptosis of the different viscera. Such cases may arise in old women who have suffered for years from large tumors, multilocular cysts of the ovary, cysts of the broad ligaments, large fibroids, and cases particularly of carcinoma of the viscera of the stomach, or of the ascending colon, where there is a tremendous amount of elongation or prolapse of the viscera by prolongation of the colon, so that the organ is let down against the abdominal wall, and nothing supports the organ except the abdominal wall. So soon as an incision is made through the abdominal wall, that support is taken away and no suturing can be depended upon to give sufficient elastic support to maintain perfect coaptation. Ventral hernia may be caused by a prolapsed kidney, and undoubtedly the ptosis of the abdominal viscera is one of the most frequent causes for the sequent ventral hernia after the operation on the abdominal wall.

The method of suturing wounds by prolonged and continuous sutures through the peritoneum, and ignoring the muscles entirely, and joining or coaptating the skin and suturing it, has not been followed particularly often by ventral hernia. Had the question of the occurrence of ventral hernia, or its non-occurrence, depended upon the coaptation of the fascia, then should ventral hernia have followed every one of these cases.

Ventral hernia is a matter which, as I should think has been pretty well proven by the condition of soldiers during the late war to be largely conditioned upon the physical condition of the individual. In examining the 2264 inmates of the National Soldiers' Home last year, there were found forty-six cases of ventral hernia in men, forty of which were above the umbilicus, and six below. In one case which was regarded as a ventral hernia, there was hernia following an operation on the abdomen for dressing a shell-wound of the abdominal-wall, and, of course, we could get no history in regard to the operation or its method of treatment. This hernia was very large in size.

Another point that Dr. Ladd made in regard to the question of the use of sutures is, I think, worthy of attention. I do not think the number of sutures is of the greatest importance. Dr. Senn, who certainly has had great experience in these matters, and with whose operations I have been familiar, seldom used more than five or six sutures along the abdominal wall, which were passed directly though the whole thickness of the wall from within outward. The abdominal wall was then lifted by means of the sutures, and a sponge used to protect the intestines; this was removed and then the sutures were each separately tied. Then a few superficial stitches closed the wound entirely, and that was the end. I saw many of his cases after the operation and followed them to recovery, and saw no cases of ventral hernia following. My own list of laparotomies is not enormously large, but I have never been obliged to accuse myself of having caused ventral hernia by neglect in regard to the number of stitches, and I seldom use more than four or five in an abdominal wound. If the operation has been done under proper aseptic conditions and has been done properly, there is but little chance that forty-eight hours will go by without there being complete cohesion of the peritoneal surfaces, and but little more is required of the stitches through the abdominal wall than to maintain the surface in coaptation until such effusion of lymph shall have taken place and the wound has been healed from within. Therefore, I think that with each stitch danger increases, and that the fewer we use the better, within reason.

Dr. Solon Marks: I have seen a good many ventral herniæ within the last forty years, and I look upon it that it is hardly necessary to stitch the fascia at all. I think, in the majority of cases, where the sutures are put through the wall entirely and drawn up, that union will take place in a short time. I think there may be cases such as Dr. Ladd has alluded to, where it is absolutely necessary to insert a large number of stitches, but, as a rule, I think the dressing, as described by Dr. Brown, is all that is necessary. I hardly believe that it is necessary to stitch those different fasciæ separately and put in a great number of stitches.

Dr A. J. Puls: I would like to call attention to the following points:

First: The adhesion of the small intestines to the peritoneum, can always be avoided by placing the omentum over the intestines. *Second*: There should be no

antiseptic solution used in the abdominal cavity. Wherever you apply the antiseptic solution within the cavity you are sure to have adhesions of the intestines to the wound surface. *Third*: Abscesses of the abdominal wound I have not met with except in one case, and the fault there arose from my not drawing one stitch (it was the lower stitch) through the abdominal wall. As a rule, I always sew right through the wall from the outside, bringing the needle through on the inner side in the opposite direction, and bring both walls in opposition. I am always careful to get the muscle to come together. I do not care at all about the fascia; I do not see it. *Fourth*: Take in the peritoneum and the muscle and you will always have a good, healthy wound. I have had occasion to open two of my wounds and make a second laparotomy, and I found an exact cicatrix which would not, under any circumstances, allow a ventral hernia. *Fifth*: It is advisable, in order to avoid the possibility of ventral hernia, to secure the wound for at least half a year with straps and bandages.

Dr. Brown: I have had occasion to look up the matter of ventral hernia thoroughly and particularly. I have had four cases within the last year upon which I have operated, and I would like to say a word in regard to fascia. I operated three weeks ago in this hospital (Milwaukee) upon a case where the laparotomy was followed by ventral hernia. The post-mortem examination disclosed a carcinomatous degeneration of the left Fallopian tube. The condition of the hernia in this case is of interest, particularly in relation to what Dr. Ladd has said in regard to the coaptation of the edges of the fascia. This woman had a ventral hernia, which, when she took a deep inspiration or contracted the abdominal wall for the purpose of evacuating the bowels, protruded from the abdomen as large as a four-quart pail, and when she stood erect and threw the bowels back into the abdominal cavity and held them there by a tense condition of the rectal muscles, the hernia was half as large as a child's head. When I attempted to get the history of the case, all I could find out from her was that she had been operated on in Portage two years ago. Five weeks after the operation, the wound not being healed completely, (she had been obliged to go about her household duties,) the whole wound got open except the peritoneal layer. She had been put to bed again, the edges of the wound brought together and junction had taken place, leaving behind this ventral hernia. I endeavored to make the operation by making an incision on the side of the tumor about the circumference of its base, the idea being to split the layer of tissue which covered the bowels, dissect out a piece of the encasement of the tumor, draw the peritoneal margins together and sew the semilunar-shaped flap back in its place, and in that way bring the line of the two incisions at different points in the abdomen, and also to interlace during the process of operation the layers of muscles from the one side of the abdomen with the layers of muscles from the other. But so soon as I made my incision and attempted to split the flap I found it consisted simply of peritoneum, transverse fascia and the skin—there was no muscle there; so I was obliged to make a central incision, dissect off part of the flap and bring the edge of the wound together in the ordinary way. The wound healed perfectly, but the woman died on the eight day of inanition and a post-mortem examination revealed the fact that the intestine had become adherent—long before I had seen the case—to the upper portion of the uterus and its lumens was less than the size of a very small quill at that point. She had taken food which remained in the upper part of the small intestine, none passing through the bowels. She had no temperature and would have made a good recovery except for this contraction of the intestine. It was certainly a case where apparently the transverse fascia had done something towards trying to save the abdominal and had not done it. It was impossible to draw the muscle layers of the two sides of the abdomen together, and there was no elastic tissue whatsoever of the intestine and the abdominal contents, and the hernia was formed. It seems to me that it is far more important that the muscle layers of the abdominal wall should be as nearly as possible placed in their original position for the sake of their elastic characters, than that the inelastic, unyielding, white, fibrous tissue of the transverse fascia should be restored to its place.

Dr. Samuel W. French: In respect to this point of uniting fascia, I would

say that it calls to mind an unfortunate case that I had two years ago, in which I had the stitch abscess the doctor has mentioned, and the whole wound went by the board. The peritoneum, however, had united. The wound had to be filled up from the bottom. I attempted about two months after the operation, to refresh the edges and bring them together by buried sutures, but there evidently was some pus left behind, and the operation was a failure. The patient remained in the hospital some eight months and it was eight months from the time of the operation before the whole wound was healed. I saw the patient a year afterward and there was no ventral hernia. I believe that stitch abscesses come from dirty needles and improperly prepared silk, and no matter how careful we may have been, that there has been something left behind, so much so that in using silk myself I sterilize my silk and my needles upon three successive days if I am going to do a laparotomy. But I do believe that the next time I do laparotomy I shall use the silk worm gut, and I had come to that conclusion some time ago. I have noticed also that another gentleman, a member of this society, who does a great deal of laparotomy work has also come the self-same conclusion, and I understood from him the other day that for some little time back he had used nothing but silk worm gut for the abdominal sutures. I believe this course is sound, because it is perfectly evident that a silk worm gut is a substance that can be more thoroughly sterilized and you are surer about it than you are with silk or braided silk.

Dr. Puls: I favor the use of silk for sutures. I have used silk worm gut for vaginal operations, and I am sorry that I have. I do not like it. It cuts into the tissue, and unless you thread it thoroughly it opens, and if it is too tight it will cut. Silk will never do that.

The point made by Dr. French of sterilizing the needle three times before going through an operation is, in my opinion, altogether erroneous. If he takes his needle and thread and puts them into a sterilizer and leaves them there for ten or fifteen minutes, he will never have stitch abscesses, everything else being in proper condition, and properly done. I have seen gentlemen come with their needles prepared the night before to an operating room, and have heard the method praised, but I think it is unnecessary and wrong.

Dr. A. J. Burgess: A practical point about ventral hernia is that it rarely, if ever, becomes strangulated. Therefore, a surgical operation is not always necessary. The treatment by bandages and trusses is often sufficient and certainly much less dangerous.

Dr. French: If we are ready to believe scientific men on the germs of suppuration, it has been found that there are certain germs of suppuration that fifteen minutes will not kill in the sterilization; and it is therefore necessary, in order to be positively sure that all germs and all spores are killed, to sterilize on three successive days.

Dr. Ladd (closing the discussion): This discussion reminds me of a story which illustrates the point so well that I may be excused for telling it. In a western court a case was brought where a railroad company was defendant. A farmer had carelessly driven across in front of a locomotive of the company and had been struck. The engineer testified that he blew his whistle; the brakeman testified that he heard the whistle blow; but the farmer brought in five men that testified that none of them heard the whistle blow, and the farmer won his case. I have never had a ventral hernia follow an operation. The fact that Dr. Brown cites 126 cases in which it has not occurred proves nothing. It is the case that has ventral hernia that he must investigate to find whether the fascia are finally united. The case of the drainage tube would also be a case where the fascia was not united. He has not brought forward a positive case of ventral hernia to illustrate the point. I do not put three stitches to an inch in a wound after laparotomy. In my paper I refer to operating in case of ventral hernia.

As to suturing the muscle, this undoubtedly is important, and the ordinary way of applying the stitches through the muscle would, almost invariably, include the fascia, which is probably the reason why ventral hernia has not more often followed these operations.

Foreign.—Mr. Murphy—Pwhat is lay greep, Mrs. Flaherty? Mrs. Flaherty—It's me impreshun, Mr. Murphy, that it is wan of thim bloody Oyetelian saysoities.

GYNECOLOGICAL TECHNIQUE AS CARRIED OUT AT THE GYNECEAN HOSPITAL.*

J. M. BALDY, M. D.

It is no uncommon thing to have physicians from all over the country, who are making a temporary stay in Philadelphia, and who are visiting the hospital with the object of seeing operations, question minutely as to the different points in the preparation, and not infrequently express surprise at the simplicity of these. In fact, it has often occurred to me that many of our visitors are more interested in the preparation than in the operation itself. To one who has the success of this class of work at heart, this seems to be a step in the right direction, as it has long since been recognized by the successful operators of the world, that more good results are obtained by mediocre operators, whose preparations have been most careful and systematic, than by their more brilliant colleagues who have been inclined to scoff at minutiæ and to depend upon their mechanical skill.

From time to time articles on this subject have appeared in medical print giving the most elaborate description of the preparation and the apparatus used, most of which are undoubtedly excellent and well-fitted for the operating-room of a hospital, but which are unnecessarily cumbrous when one comes to apply them to private work. For this reason I have been encouraged to enter upon a detailed description of our work at the Gynecean Hospital, the application of which can readily be carried into private practice. The watchwords from the beginning to the end of an operation are *thoroughness* and *simplicity*.

The aim of all successful operators is the same, namely—the prevention of any septic matter entering into the field of operation. Different operators adopt different methods of accomplishing this object, but for success, the object and result must be the same, whatever the method adopted may be.

Antisepsis or *asepsis*, as fancy may dictate, the principle is the same. To be successful one must be surgically clean. For the proper accomplishment of this one must consider and treat: 1. The patient. 2. The operating-room and its paraphernalia, including tables, basins, pitchers, buckets, instruments, ligatures, sponges, dressings. 3. The operator, assistants, and nurses.

1. *The patient.*—The preparation of the patient should begin, when possible, at least twenty-four hours before the operation. The first steps are to regulate the diet and empty the gastro-intestinal tract. Free purgation is begun at once, preferably by the use of some saline. This is usually administered in the dose of a drachm of sulphate of magnesia, dissolved in water, each hour until the bowels begin to move. Usually five or six doses are sufficient to accomplish the object. The purgatives should be so administered that the action of the bowels ceases five or six hours before the time set for the operation. After beginning the administration of the purgative, the diet should be light and concentrated. If the operation is to be performed in the afternoon, the patient's supper on the day before consists of the ordinary house diet. From this time on nothing passes her lips, unless it be a glass of milk or a cup of bouillon at breakfast-time. Even water, except in small quantities, is withheld. These steps in the preparation can be carried out in the case of most patients, but in dealing with an unusually weak woman, considerable judgment must be used in their application. A hot bath is given, both the day before and the morning of the operation. If the patient is unable to be moved to the bathtub, the baths are given in bed. Prior to the final bath an enema of soapsuds and water and a vaginal douche of bichloride of mercury (1 to 3000) are given. Immediately on coming from the bath a fresh night-gown is put upon the patient and she is placed in a bed which has been specially prepared for her reception. After returning to bed the abdomen—the seat of the operation—is especially prepared. A nail-brush, soap and hot water are used freely and vigorously, special attention being paid to the umbilicus and pubic hairs. In but exceptional cases is the pubes shaved. The abdomen is then bathed with alcohol and turpentine

*[Read before the Philadelphia County Medical Society, December 28, 1892.]

and is finally protected until the time of the operation with a towel wrung out of bichloride solution.

When the patient is placed on the operating table the abdomen is well rubbed with ether and bathed with alcohol by the operator as the final preparation, especial attention being paid to the pubic hairs and the umbilicus. The legs are wrapped in a blanket, which extends from the feet to the pubes; a second blanket is placed over the chest. All blankets, clothing, table, etc., about the patient from her chest to her feet are now covered with towels prepared for the purpose, the abdomen being left bare from the epigastrium to the pubes. Over all this is placed a piece of bichloride gauze, with a slit in it at the point of the incision.

In the preparation, the room is first stripped of all its furniture. The walls, ceiling, and floor are washed down with a hose, and then mopped off with a cloth dipped in bichloride solution. As each article is brought into the room it is scrubbed with soap and water, rinsed off, mopped with bichloride solution, and placed in its proper position; the tables and benches are covered with sheets or towels especially prepared for this purpose. A glance at the accompanying cut will more clearly demonstrate this. All linen used in the operating-room has been laundried by itself. Distilled water is used throughout the operation.

Instruments.—After an operation the instruments are thoroughly scrubbed with soap and water, and are then passed through

2. *The Operating-room and its Paraphernalia.*—All tables used in the operating-room with the exception of the Krug frame for Trendelenburg's position, which is of galvanized iron, are made of wood, perfectly plain and shellacked. The reason for this is two-fold—first, because it is desirable in the preparation of the room that it should be emptied; this is rendered possible in the case of everything except the gas fixture and the sink. Secondly, as there is an operating-room on each floor, it becomes necessary to frequently move the tables from one room to the other. When not in use, the windows in these rooms are always open. The walls of the room from floor to ceiling are of white tile, the window trimmings are of white marble, the floors are asphalt, the ceilings are plastered and heavily painted.

scalding water before being returned to the case. Prior to the operation they are boiled for twenty minutes in a weak soda solution. As few instruments as possible are used. In an ordinary operation two needles, two ligature staffs, four hemostatic forceps, a knife, a needle-holder, and a pair of scissors are amply sufficient. These, are taken, together with the tray on which they are placed for boiling, directly from the sterilizer, and put upon the table as the patient is brought into the room. In this way they are not handled from the time they are taken out of the sterilizer until they are to be used.

Ligatures.—Three varieties of ligatures are employed—silk, silkworm-gut, and catgut. A half-hour before the operation the silk is immersed in a bichloride solution (1 to 100); prior to being used it is

washed in boiling water. The silkworm-gut is boiled with the instruments. The catgut is prepared by being immersed in ether for forty-eight hours, soaked for the same length of time in a 1 to 100 alcoholic solution of bichloride of mercury, after which it is put in a solution of two parts oil of juniper and one part alcohol. It is taken directly from the latter solution for use at the operation.

All sutures and ligatures used within the abdominal cavity are of silk (Chinese twist.) Silkworm-gut is invariably used for closing the abdominal wound. Catgut is used principally in vaginal hysterectomy and plastic work.

Sponges.— New sponges are prepared by being thoroughly beaten, soaked for twenty-four hours in a weak solution (3 per cent.) of hydrochloric acid, after which they are soaked for twenty-four hours in a strong soda solution, and are finally placed in alcohol. Immediately after being used in an operation they are thoroughly washed in cold water, placed in a strong soda solution (practically a saturated solution) for twenty-four hours, at the end of which time they are removed, washed under the cold-water spigot until all the soda is washed away, and are then immersed in a solution of sulphurous acid for twenty-four hours. They are taken directly from the acid solution, washed, and placed in commercial alcohol until used. Four sponges only are used at each operation.

Dressings.—The dressing of the abdominal wound consists in placing several strips of dry bichloride gauze directly over the incision, a cotton pad covered over with gauze placed over this, and the whole held in place by a six-tailed bandage. Dressing are not disturbed for eight days. No iodoform or other powder is used. Stitch-hole abscesses are the rare exception.

Draining-tubes.—After being used, the glass drainage-tubes are soaked in strong soda solution for twenty-four hours, rinsed under the spigot, washed with turpentine and ether, and then boiled for twenty minutes, after which they are kept in commercial alcohol.

Rubber drainage-tube, whenever used, is soaked in bichloride solution, and washed in boiling water.

After an operation the drainage-tube is cleaned by the nurse every fifteen minutes or half-hour, as occasion requires. As the fluid discharged from the tube lessens in quantity, the intervals of cleaning are lengthened. Each time the tube is cleaned the nurse's hands are carefully prepared with soap and water and bichloride solution.

At and after each cleaning the syringe used to withdraw the tube-contents is cleaned inside and out with hot water and bichloride solution, as are also the mouth of the tube and the rubber protecting it. Fresh bichloride cotton is placed over the entrance of the tube at each cleaning. The tube is removed as soon as the contents become clear and small in quantity. The edges of the opening left by the tube are drawn together by a strip of adhesive plaster, and the dressings replaced by fresh ones.

3. The Operator, Assistant and Nurses.—Everbody who takes part in an operation, and is liable during its performance to handle any of the instruments or materials, is required to go through the same preparation. All assistance is rendered by three nurses; the chief nurse assisting the operator directly, a second nurse attending to the sponges, and a third nurse changing the waters. The preparation of operator and nurses is as follows: a hot soap bath, and clean linen clothing direct from the wash. The hands and arms are prepared by first carefully cleansing the nails with a penknife, a free use of hot water, soap, and nail-brush for twenty minutes, and rinsing in fresh water. They are then bathed in commercial alcohol, and are finally soaked in a bichloride solution (1 to 2000) for five minutes. The greatest danger-point of infection is, of course, under the nails, and time used in a most careful hand toilet is never misspent—is, in fact, absolutely essential to success.

A careful study of the cut, which represents one of the operating-rooms as it appears prior to the introduction of the patient, will demonstrate the simplicity and thoroughness of all the preparations. There is not an article in the room which cannot be duplicated or easily substituted in any well-ordered household. Soap, water, nail-brush, and bichloride of mercury tablets are easily obtained, and as for the remainder it rests entirely with the surgeon and his nurse. With a little more time and trouble the poorest hovel

can be turned into a good and safe operating-room, by adopting these rules, as I have been able to demonstrate time after time in my work in the slums of this great city. Of course, it means plenty of hard labor for both nurse and surgeon, but what nurse or surgeon who has once passed through the horrors of attendance at a death from septic peritonitis would not feel that the work before the operation was as nothing in comparison to that afterward.

The number of instruments, sponges, etc., may seem to many to be entirely inadequate for the purpose, but in many hundreds of operations we have found them amply sufficient; it is the rare exception that recourse to the instrument-case is necessary. The fewer articles used the fewer sources of possible infection and accident. A large number of instruments lying about are, in addition, a source of endless confusion and annoyance, and they require an extra assistant.

Hæmorrhoids.

In an article concerning "Reconstruction of the Pelvic Structures in Women," Dr. H. Marcy, of Boston (*American Journal Obstetrics*, for November), writes:

The pathological conditions which pertain to the rectal tissues result in very large degree from changes in the vascularization, dependent upon the dilation of the hæmorrhoidal veins. These are often deformed to an extent rarely appreciated by the ordinary practitioner, and only to be truly understood by the surgeon who makes the vivisection for the purpose of cure.

I am constrained to believe, as I think for abundant reason, that the ligature and cautery, destruction of the tissues by acids, etc., are not alone unsurgical and barbarous, but they also often fail in the end of securing the desired result, since a portion of the deformed structures not seldom remain unchanged, and tissues of importance to preserve are thereby frequently destroyed.

A complete dissection of the deformed hæmorrhoidal plexus, as advocated by Mr. Whitehead, offers in my judgment abundant reason for adoption, and the only criticism which I have to make upon his method is the closure of the wound with interrupted sutures. This method has been severely criticised, and has failed in great measure of general adoption because of the fear of hemorrhage which during the indefinite pass has been emphasized as liable to pertain to any of the methods applicable to the cure of hæmorrhoids. This is doubtless greatly overestimated by the profession at large.

The dilatation of the hæmorrhoidal plexus is, indeed, sometimes truly enormous, but it will be found upon dissection that the vessels quite within the grasp of the sphincter are usually very little changed, and that here their constriction is simple and easy. I have for some years operated in a way to be commended as in large measures bloodless and assuredly without danger of subsequent hæmorrhage.

The procedure is briefly as follows: The sphincter muscle is dilated and the parts put on tension by two fingers in the rectum. Either with a sharp knife or scissors division is made upon the line of the juncture of the skin and mucous membrane. With a little care the veins are separated from the loose folds of connective tissue without injury, down to the line of the sphincter muscle. They will be found closely connected with the everted thickened mucous membrane, a portion of which it is well to remove. Division should be made through it upon the line selected for incision, and a row of continuous double tendon sutures is rapidly made to encircle the base of the hæmorrhoidal plexus. It is then resected with scissors, and a light line of continuous running sutures encloses the deeper layer, and when drawn upon gently, taken, as advised, from within outward, are themselves buried, thus leaving no stitches in sight. Carefully dried and dusted with iodoform, the operation is completed by painting the line of closure with a layer of iodoform-collodion. It is usually better that three or four days elapse before defecation ensues, after which there is little suffering. With the paralyzed muscle at rest, the condition of the parts remaining aseptic, pain and edema are almost wanting.—*Md. Med. Journal.*

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SATURDAY, JANUARY 7TH, 1893.

EDITORIAL.

With this issue THE MEDICAL AND SURGICAL REPORTER enters upon its forty-first year of continuous publication. Every effort will be made to meet the growing demands of modern medical journalism and at the same time retain the highly practical character that has always distinguished this magazine. There are in the field to-day medical journals and medical journals, but few in which the effort is made to supply the profession with accurate, reliable information of the progress of the science and art of medicine and surgery.

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As its name signifies its mission is to report as far as possible the latest and best achievements in the whole field of medicine and surgery. The evolution of medical science has so developed along special lines that it is manifestly impossible for any one journal to cover in detail all branches of medicine and surgery and remain within reasonable limits.

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The general practitioner, who to a certain extent is a specialist in all lines, has not the time to read, if he has the means to procure, special journals for each branch. Recognizing this condition THE MEDICAL AND SURGICAL REPORTER will in the coming year supply periodically a series of monographs. These will be in the form of supplements to the regular editions of the magazine. Each monograph, written by a specialist eminent in his line, will be devoted to one subject treated in greater detail than is practicable in the regular columns. Another feature will be a care-

ful review of the contents of the best special periodicals under a department of Current Literature Reviewed. In the matter of Book Reviews an impartial critical statement will be made. This department will be conducted for the information and advice of the readers of the REPORTER wholly independent of other considerations. The Editorial Department will maintain an independent position, free to discuss or comment on such matters as may be of interest to our patrons.

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Periodical Intermenstrual Pains.

Dr. C. D. Palmer (*New York Medical Journal*) says:

The symptoms of such a condition are principally attacks of pain, coming on generally about the middle of the intermenstrual period, and most severe in the region of the ovaries. Sometimes the pain is confined to one ovary, or both may be involved in the paroxysm. The attacks are irregular in severity and duration, usually intermittent, occurring at night or through the day. Their duration may be from two to nine days. They are not influenced by bodily exertion nor attended by febrile phenomena. As to the cause of such ovarian pain, neuralgia has been suggested as a probable factor, but, if this be the case, why is it that pain does not occur during the regular menstrual period, as at that time women are especially susceptible to pelvic pains? The periodicity of the pain first led to a suspicion of malarial poisoning in these cases, but this theory was soon abandoned when it was found that the attacks were not at all influenced by the most potent antiperiodics. I am not inclined to think there is a structural change in the ovary to account for the pain, although the form, size, or even density of the organ may not be so altered as to make the change discoverable before removal. The condition may be an oöphoritis, a peri-oöphoritis, and interstitial oöphoritis, or a follicular oöphoritis, or several of the tissues may be involved in the degenerative process. There is likely to be hardening of the organ, which interferes with the rupture of the follicle; this may be one cause of pain. There is no reason why the pain may not occur before the menstrual flow, on account of the increased vascularity of the ovary at such a time. The severity of the pain may be out of proportion to the pathological change and nerve pressure. When the congestion subsides, the pain is usually relieved. Various measures have been resorted to for giving relief, some of which have been more or less effective temporarily. In some cases, however, the suffering will be of such character, and the life of the woman be made so miserable, that the question is forced on the gynecologist whether it would not be the proper thing to remove the ovaries in such a case, even though to the touch they seem normal.

Syphilis, after a number of years in the system, becomes detritus—not the disease *per se*—and needs a solvent plan of treatment, not a germicidal.

TRANSLATIONS.

POST-OPERATIVE INTESTINAL OBSTRUCTION.

MARIE B. WERNER, M. D.

Championnière reports six cases treated successfully by operation. (*Bull. et mèm. de la soc. de chirur. de Paris T.* xviii page 102).

1st Case. Ovariotomy; patient æt 35. Four days after the operation symptoms of obstruction set in, gradually increasing in severity. Reopening the abdominal wound on the tenth day various coils of intestines are found to be adherent to one another, one being twisted twice, forming a circular constriction around another. Carefully releasing the adhesions, the abdomen was closed, followed two hours later by a copious bowel movement. Recovery.

2nd Case. Radical operation for incarcerated gangrenous omental hernia. The patient did well up to the 14th day, after that violent abdominal pain set in, vomiting and increased temperature. Vomiting increased until it became fæcal in character. Abdomen distended above the umbilicus where a circumscribed hard mass could be felt. Second operation done on the 21st day. A large abscess was found surrounded by intestines and covered by the omentum; drainage and recovery.

3rd and 4th Case. Radical operation for left inguinal hernia; recovery takes place; pains, however, appear in the right inguinal region, accompanied with moderate swelling, vomiting and constipation. Four weeks after the operation it became necessary to make an incision over the right inguinal canal. A small amount of fluid is evacuated, but the intestines are seen to be adherent to the swelling, which made it advisable to open in the median line and approach the swelling from the inside. This proved to be an incarcerated loop at the internal inguinal ring which had become almost gangrenous. Close to this there was also an abscess. The median incision was closed; the one on the right was tamponed. Recovery.

Two and a-half months later symptoms of ileus again set in. Laparotomy; incision over the right inguinal canal and release of many dense adhesions. The day following, a copious movement. The abdomen, however, increased in distension, making it necessary to perform inguinal colotomy. Recovery; discharged with fistula.

5th Case. Radical operation for a congenital left inguinal hernia with resection of a large portion of the omentum. Case progressed favorably until the ninth day when symptoms of ileus set in; constipation, vomiting and fever, 38.8° C. A painful swelling can be felt in the right iliac fossa. On the nineteenth day an incision is made into the swelling, a large amount of extravasated blood is evacuated, the sac cleansed and drained; rapid recovery.

6th Case. Herniotomy for incarcerated intestines. A small perforation was discovered and closed; healing. After a time colicky pains; constipation and tympanitic distension of the abdomen appeared. These symptoms increased until there was no doubt of its being caused by ileus. Laparotomy; that portion of the gut which had been sutured was found tightly adherent to the abdominal wall, its calibre markedly lessened by its angular position. In order to avoid enterorhaphie Championniére dissected the intestine from the abdominal wall leaving both peritoneal coats intact at the points of adhesion; recovery complete.

Championniére is decidedly opposed to the administration of opiates in any form after any abdominal operation. He is particularly anxious to have an early action of the bowels and in certain cases has been known to give laxatives on the evening of the day of operation, and feels certain it will rather lessen than favor the danger of peritonitis, in that early peristalsis often prevents incarcerations, adhesions or paralysis of the intestine. He also condemns the use of opiates in cases of strangulation of the bowel, feeling certain that the early exhibition of laxatives has often led to an early diagnosis.

*Translated for Medical and Surgical Reporter.

A Case of Living Xiphopagus.

Hr. Marcel Bandowin reported in the *Paris Academie of Sciences* the case of two girls of three years and two months, being united from the xyphoid process to the umbilicus in the regio sub-umbilica. They were born in the East Indies, and make the eighth case of xiphopagus reported. A careful examination proved that neither presented inversis viscerum; which proves that the lower division of the true xiphopagi and thorakopagi have been properly described by Dareste who presented their origin in the following manner. If in one ôvum two fertilized nuclei develop in a parallel line at the same time, a double monstrosity results, the xiphopagus; both primitive lines must at first be distinctly separate, one at each pole of the ovum; when the embryos, well developed, become larger, they face each other and the upper regions of the body come in contact. Surgical treatment in these cases is advisable. In fact, indicated, for should one of the sisters become fatally ill the chances of saving the other would be greatly lessened. Even should there be union of the liver, adhesions or even anastomosis of the intestines (which is not improbable), the operation might produce a doubly good result.

It has been performed several times (?) by Kœnig with a good result and ce by Bœhm-Gunzenhausen, on his own daughter, with partial good results; the one living five years after the operation.

Resection of the Left Lobe of the Liver for Cancer.

Prof. von Licke (*Central-blatt. f. Chirurg.* 41, 1892) reported in the *Centrabl. f. Chirur.*'91, No. 6, p.115, this case in detail and wishes to report the present condition of the patient. Two years have elapsed since the operation, the patient has been constantly under observation, and frequently examined. During the past summer she became much emaciated, and suffered from loss of appetite and frequent vomiting and distension in the gastric region; a return was suspected; the cicatrix, however, was healthy and the most careful examination disclosed no tumor of either liver or stomach. By exclusion it was concluded that her emaciation and its concomitant symptoms was due to her impoverished circumstances, the good diet and care she received with her visible improvement in strength and weight seemed to substantiate our conclusions.

At the present time a careful examination proves the *total absence of any return in the organ operated upon for more than two years.*

ABSTRACTS.

CHOLERA EPIDEMIC OF 1892.

In an editorial retrospect of the past year the *Boston Medical and Surgical Journal* says:

"In recent years, when cholera has reached Europe, it has generally come by the way of the Suez Canal. This was the case in the outbreak in 1890, in Spain. In 1891 no cases was reported in Europe. It had, however, come through the Red Sea ports into the Hedjaz, during religious ceremonies in Mecca, and had spread through Asia Minor. In the first of the year cases still occurred in different parts of Asia Minor, but by the middle of February it has disappeared from the neighborhood of Damascus and Beyrout, and existed only in one or two interior valleys. This year the religious pilgrimage to Mecca was not attended by cholera.

The epidemic of this year appeared in March, in the northwestern provinces of India. It is obligatory on every Hindoo to bathe in the Ganges where it issues from the mountains. The dying Hindoo, also, is immersed in this stream, if it is possible to get him there, and this point is always considered a cholera focus. The water this year was very low, and the bathing-place was reduced to a pool. On March 22d the first case occurred at Hurdwar, and on the 25th the fair was closed by the police authorities. The dis-

ease was spread by returning pilgrims through the Punjaub, and reached Delhi on March 30th. From here it spread through the Cashmere Valley, and reached Afghanistan on April 15th, and it reached Persia in May. In June it crossed the Caspian Sea, and in July spread among the population of Asiatic Russia. By the middle of the month it reached the Caucasus and crossed into European Russia. It was at this time especially virulent at Teheran and Astrakhan and in the Caucasus. It advanced steadily through Russia, reaching Moscow and St. Petersburg by the middle of July. Until this time no cases had been reported west of Russia except in Paris and these cases in Paris were not a part of the invading epidemic. From April 5th up to July 25th about 160 deaths from a rapidly fatal diarrhœal affection had been reported in the neighborhood of Paris, and the character of the disease, although attributed to the use of Seine water, and manifesting itself in those quarters where that water is supplied for consumption, bore such a striking resemblance to Asiatic cholera, that its identity was during the whole summer a subject of dispute. This disease, which was popularly called cholerine, had existed as an endemic outbreak to a less extent in previous summers. In the autumn, after cases of undoubted Asiatic cholera had occurred in northern France, the attempt to distinguish between the two diseases was abandoned,.

In regard to the origin of the cholera in Hamburg, Havre and Antwerp, nothing positive is known. The infection of Hamburg may have come by rail through Germany, with Russian immigrants on their way to America, or it may have come by sea from Russia or from India. All of these suppositions were discussed. The authorities of Hamburg discovered the true character of the disease on the 22d of August, and announced it on the 24th. It was found to exist in Havre and Antwerp within a few days of the same time. During the next week isolated cases made their appearance in many cities, the cases being almost all easily traced as imported from Hamburg. Several cases occurred in Berlin, some in other North German cities, some in different English seaport towns, all of the latter being in persons directly from Hamburg. Such isolated cases continued to occur during the first half of September, diminishing in frequency. In Hamburg the epidemic increased very rapidly and with a great mortality. Although the highest point in mortality was reached in the week ending September 3d, when 4,168 deaths, of which 3,710 were from cholera, were reported, making a death-rate of 340.8, nevertheless, for some time the decline was slow, but after the last week in September fell rapidly. In Havre the epidemic was not nearly so great, the number of cases a day about the first of September being from 25 to 100.

The extension of the epidemic crossed the Austrian frontier some weeks later, a few hundred cases being reported, especially in Austrian Poland. It appeared in Buda-Pesth early in November, and continued into December. In the whole Austrian Empire 1,000 cases and 500 deaths may be estimated as the number during the autumn. On November 1st, Hamburg was declared free from cholera, but in November four deaths occurred and in the last half of December a fresh outbreak occurred, about forty cases being reported up to the present time. The official statistics in October gave the number of cases as about 18,000 with 7,600 deaths. In Havre, the number of cases from July 15th to October 15th was given as 1,298, and that of the deaths 523. This includes a few cases which were later classed as cholera although occurring before the outbreak was recognized. During November a few cases were reported from different parts of France, 104 in Holland, 33 in Belgium, whereas in Germany there were none except the four in Hamburg. In Russia the epidemic was much more serious and persistent, many districts were revisited after the epidemic had apparently declined. After the 1st of November the disease as a whole was much less serious in the Empire, but the total number of cases reported remains considerable even up to the present time. The estimate of 300,000 deaths is commonly considered as less than the actual fact. The efforts of the sanitary authorities were very much hampered by popular uprisings and in some cities serious riots occurred in consequence of the attempt to enforce sanitary regulations.

Cholera was imported into the New York quarantine directly from Hamburg. The first infected steamer to arrive, the

Normannia, left Hamburg just before the official announcement of the existence of an epidemic. Within a week two more steamers, the *Moravia* and *Rugia*, and latter the *Scandia*, reached New York thoroughly infected. The number of deaths at sea had been 63 and a still larger number were either suffering from the disease on arrival or came down with it shortly afterwards in quarantine. The number of passengers detained from this cause was very large, far beyond the capacity of the New York quarantine station. After keeping the cabin passengers, who with a few exceptions had been free from cholera, for several days upon the infected ships, a steamer was hired by private liberality to accommodate them, and Fire Island bought as a place of detention. The inadequacy of the quarantine station and the bungling of the whole matter may be understood by following the subject as it appeared from week to week in the JOURNAL. A few cases, a dozen or more, with five deaths occurred in the city; their source is doubtful but is more probably due to contagion introduced by passengers from an earlier steamer which sailed from Hamburg on Aug. 14th, than that it escaped from the quarantine.

INTESTINAL OBSTRUCTION: SOME CURIOUS CASES.

George Buchanan, Professor of Clinical Surgery in the University of Glasgow, in *The British Medical Journal* says:

"Diseases of the rectum are, of all surgical affections, among those which are most frequently neglected in their early stages, and so are allowed to assume a condition of considerable gravity before treatment is resorted to. This arises from various causes. Many persons, especially females, have great disinclination to have that part of the body made the subject of observation and examination, till compelled by their suffering to resort to a medical opinion; at least, that has often happened in my experience. Again, many imagine that all disorders of the intestinal tract arise from indigestion, biliousness, or habitual constipation, which they imagine can be removed by the use of familiar laxative medicines, and these they use with all diligence till they prove ineffectual; and if by pain and other discomfort they feel that there is something wrong at the lower end of the bowel, they assume that it is a "touch of the piles," which can be cured by some of the pills and ointments so frequently advertised. One can scarcely take up a newspaper, especially provincial, colonial, or American, without observing the numerous advertisements of remedies vaunted as cures for such ailments; and I believe that the extensive use of these remedies arises from the disinclination, to which I have referred, to submit these complaints in the first instance to the regular practitioner.

But while this is so, not infrequently neglect of radical treatment can be traced to errors in diagnosis, sometimes, though not always, the fault of the medical attendant, who is apt to be thrown off his guard by erroneous descriptions of the symptoms given by the patient. One or two examples of this will follow.

The term "intestinal obstruction" in the present day is used rather vaguely. Under it are included cases presenting symptoms, or groups of symptoms, which are present when there is real occlusion of the intestinal tube, but which are sometimes present when there is no actual obstruction at all, but which depend on some functional deficiency, such as loss of the peristalic action of the bowel, either with or without flatus; of that I have seen several instances. In a discussion which took place in the Medico-Chirurgical Society of Glasgow last winter on intestinal obstruction, numerous examples of spontaneous recovery were cited, and some of these in circumstances which precluded the idea of there having been even temporary local occlusion of the tube. I mention these to point out that such instances were not recoveries from actual intestinal obstruction, but from symptoms identical with those of that condition.

Taking the term in its strict etymological sense, the most constant and obvious symptom is inability to pass fæces; but in the great majority of cases, symptoms of far graver import come on, long before that is of any importance. It is just in cases in which these serious symptoms,

such as obstinate vomiting and failure of the vital powers, are early prominent, that spontaneous recoveries have been most frequent. It is also this fact that renders the question of operative interference so difficult to decide.

The foregoing observations, which are applicable to intestinal obstruction generally, are more or less illustrated in the following examples:

Case 1. *Symptoms of Obstruction: Peritonitis with Effusion: Abdominal Section: Recovery.*—Some years ago I was called to see a domestic, aged about 30, suffering acute symptoms of intestinal obstruction, which had come on rather suddenly after a heavy meal some twenty-four hours before. Pain in the abdomen; obstinate vomiting, stercoraceous; cold skin, flagging pulse; no flatus. I could not form any accurate diagnosis, but felt satisfied that there was no course open to me but abdominal section. No obstruction could be found, but the peritoneal cavity was full of acrid greenish effusion, and the bowels partially glued together with recent lymph. I washed out the cavity with a stream of tepid water. The patient made a rapid recovery and is now the mother of a family.

Case II. *Symptoms of Obstruction: Abdominal Section: No Discoverable Cause: Death.*—Lady, aged about 20, with symptoms somewhat as above, but not so rapid or acute. There was no flatus, but the vomiting was continuous and non-stercoraceous. I performed abdominal section. There was no obstruction; the intestines were quite flaccid, and contained very little fluid; and the peritoneum was quite healthy. She died next day.

Case III. *Symptoms of Obstruction: Apparent Failure of Enemata followed shortly by Relief, and Recovery.*—An old gentleman with symptoms of intestinal obstruction. Constipation had existed for some days, and now there was pain in the abdomen, flatus, and obstinate vomiting. I examined the rectum and washed it out with tepid water, using a long tube and a forcing pump. There was no evidence of any fæcal impaction, the water returning as it was introduced. I could not find any abnormal condition of the intestinal tube, but, the symptoms becoming more grave, I proposed abdominal section as a last resort. The patient agreed, but asked me to bring in consultation a physician with whom he was acquainted. I did so and we agreed that, if he should have the same opinion the operation should be done at his visit. I returned with my friend three or four hours after, when to my surprise I found my patient greatly relieved. He had had a copious evacuation in the interval, and the vomiting had ceased. He made a rapid and good recovery.

Case IV. *Obstruction: Suspected Epithelioma: Removal of Impacted Fæces: Rapid Recovery.*—A lady, 30 years of age, troubled with constipation for some time, accompanied with much pain in the rectum. Latterly, the pain in attempting defæcation was so great that, practically, she had passed nothing for some time but discolored mucous and sometimes blood. For some days she had been troubled with vomiting whenever she took any nourishment. Her medical attendant, discovering that the symptoms arose from some obstruction in the rectum, endeavored to make an examination, but the pain was so great, that the patient would only allow a very partial exploration to be made, either *per rectum* or *per vaginam*. Enough was felt to lead to the opinion that the rectum was occluded by an epithelial growth, which extended far up the gut and bulged the recto-vaginal septum into the vagina. Some surgical operation was urgently demanded—either excision of the rectal tumor, or the making of an artificial anus. As the patient could not suffer a preliminary examination, it was arranged that I should put her under chloroform, make a thorough examination, and proceed as I might find matters required.

The patient was placed on a table, and put under chloroform. On introducing my finger into the retum I found it occluded by a large mass of firm unyielding material, either adhering to or firmly grasped by the walls of the bowel. But it had not the feel of an epithelioma. It was smooth and globular. I could not tear it with my finger, and there was no channel through it for fæces to pass through, and it did not bleed. I had no doubt it was a mass of hardened fæces, and the smell from my finger nail made it certain. I now with my thumbs dilated the sphincter ani as far as it would stretch, and, getting a horn spoon, tried to lever it out. It was too large and firmly fixed for that. The medical practitioner,

who lived in the adjoining house, went for his obstetric bag, and I chose a long, narrow-bladed fenestrated forceps, which is used in craniotomy. I passed a blade on each side, and, by putting on firm traction, removed a large gobular mass of firm, tough material as large as a full sized orange. Another mass as large as a turkey's egg was impacted above that, and was removed in the same way. A third the size of a hen's egg was impacted still higher up, and that was also removed, and the passage was cleared. I now injected a basinful of soapy tepid water, which came away with a few bits of scybala. The patient was practically well, and she has remained so ever since.

Case V. *Obstruction due to Impacted Fæces.*—A man who had had symptoms of obstruction for some time, but only on the day I saw him had vomiting come on. The medical attendant believed that the rectum was obstructed by an epithelial growth, and called me to perform some operation for its relief. On examination I found that the rectum was blocked by an enormous mass of hardened fæces. As the house was not suitable for operations and the symptoms were not dangerous, I gave a subcutaneous injection of morphine, and ordered the patient to be sent to the Western Infirmary, and next morning, broke up and removed the mass, which was about the size of two closed fists.

Case VI. *Obstruction due to Impacted Masses of Calcined Magnesia.*—A case which occured some years ago, I mention from the unusual nature of the obstructing mass. It was composed of hard masses, the size of walnuts, with facets caused by long mutual pressure. They were concretions of calcined magnesia, which the patient had long been in the habit of using as a laxative.

We caution against allowing patients to use calcined magnesia habitually.

It is not often that an opposite error of diagnosis occurs, but the following case is a good illustration:

Case VII. *Diagnosis of Epithelioma: Revised Diagnosis of Intestinal Atony: Recovery.*—A middle-aged gentleman, of sedentary habits, had for many months suffered from some anomalous symptoms —indigestion, flatulence, occasional vomiting, and obstinate constipation alternating with looseness, the stools being often simply discolored mucous. His medical man had ordered some tonic remedies for dyspepsia; but, as he did not improve, he consulted a surgeon with whom he was personally acquainted. The surgeon examined him *per rectum*, and told him that he had an epithelial growth far up; that it was out of reach of any operation for its removal; that there was no hope of his recovery; that his progress downward would be gradual; but that at no distant date he must decide whether he would submit to undergo an operation for the formation of an artificial anus or await his end, which could not be very far off. His medical attendant was unable to acquiesce in this opinion, and, before accepting it, brought him to me. I made a most careful exploration of the rectum, but I could find no growth, stricture, or any kind of obstruction; indeed, the mucous membrane seemed to me more flaccid and folded than usual, and in one of the folds I felt a small piece of hardened fæces, which seemed adherent or retained in the fold. I came to the conclusion that the symptoms arose from atony of the intestinal tube from end to end, with possibly some softening, in parts, of the mucous lining, and specially of the lower end of the colon and rectum. I recommended that he should give up business for two or three months and go to Spa in Belgium, and gave him a letter to my friend Dr. Thomson, indicating my opinion and the treatment I thought would benefit him. The result proved more fortunate than I could have anticipated from the use of the chalybeate waters and the change of climate and diet. My patient came home practically well, and has continued so ever since: that is, for more than two years.

A large percentage of the candidates for admission to the military schools of America are rejected on "tobacco hearts."

In chronic suppurative otitis, so long as the offensive odor continues, the treatment is not succeeding.

French medical observers are of the opinion that the offspring of inveterate tobacco users often greatly lack the normal power of resisting disease, chiefly through the transmission of defective nervous systems, and that they are largely deficient in physicial development.

THE EQUITABLE RESPONSIBILITY OF INEBRITY.

In the Journal of Nervous and Mental Diseases, December, Dr. T. L. Wright in a carefully prepared paper on this subject states that he selects the term *inebriate* responsibility because there is no settled responsibility for the acts of mere drunkenness.

Drunkenness is a form of insanity and is practically so recognized by the law. There is no definition of insanity, nor can there be. The *sane* cannot conceive the *insane*; and hence it cannot define the insane. It can only describe phenomena; but it is unable to point out the logical connections between the phenomena of insanity and their moving cause. The rule of responsibility for inebriates differs in civil from that in criminal cases. We will consider the responsibility of inebriates for criminal acts.

"The law assumes that he who, while sane, puts himself voluntarily into a condition in which he knows he cannot control his actions, must take the consequences of his acts, and his intentions may be inferred." What class of inebriates is it that most frequently violates the laws of the land—and particularly those laws that relate to crimes of violence? Clearly that class that drinks the most immoderately, the most irrationally, the dipsomanical class.

Dipsomania is a mental disease. The convulsive or spasmodic drinking of the dipsomaniac is only one of the *traits* of the malady—showing that the insanity, no longer latent, has become active and raging. Magnan says: "The alcoholic excitement with which an attack of dipsomania terminates, should not be confounded with dipsomania itself, as it is a complication, not a symptom of it." Trelat also says: "Dipsomaniacs are patients who become intoxicated whenever their attack comes on." But who is the dipsomaniac? Always he is one of the neurotic constitution. He is in a state of hypnotic automatism much of the time, not only when intoxicated, but the strong presumption is, that he labors under the same disability at the very moment when he begins to consume alcohol in order to become drunken. This is inconsistent with the idea free-will, or rational volition. Drunkenness is not always, if it is ever, a factor or a part of dipsomania, but may be a consequence of it. The dipsomaniac cannot be assumed to be "sane"; and in drinking he does not "voluntarily" put himself in a condition in which he "knows" he cannot control himself. On the contrary, the dipsomaniac being insane, cannot control himself when—and before—he *begins* his ungovernable movements of intoxication. His drinking is one of a series of causes tending toward crime—the first one of which was formed in an insane mind; and for the existence of which the inebriate mind is totally irresponsible.

It is true that the uncertainties, imperfections, and necessities of human nature, make it incumbent on society to hold, within certain limits, even the insane responsible for criminal acts. Sometimes the presumed knowledge of right and wrong, abstractly, is made the test; or, whether the insane criminal knew that a particular act "was wrong," may be chosen to determine the measure of his responsibility. Nevertheless the assigned limits of insane responsibility are narrow, and often difficult to establish. It is probable that true dipsomania may sometimes be of such moderate intensity that it should not be excused from accountability for criminal deeds. Again, the mental disease may be more severe, and grave *doubts* may arise as to the rightfulness of holding it responsible for inebriate misconduct. But there are instances wherein the violence of dipsomanical insanity is superlative; and there can be no question as to the injustice of exacting responsibility for its conduct. And now the scene of strife is reached. To distinguish accurately the truly responsible, the doubtful, and the wholly irresponsible among dipsomaniacs themselves, is the work in hand. In view of the facts of dipsomania, it seems unjust and untrue to declare that *drunkenness is no defence for crime.* In strict accordance with the legal maxim already cited, dipsomania does, in all cases, present a good *prima facie* defence for criminality. The reasonable mind, the sober mind of the dipsomaniac has nothing to do in deciding upon the probabilities of intoxication; for the intoxication of dipsomania is only of a series of more or less

insane movements, begun and carried on under the forceful suggestions of mental disease. As long as the insanity is latent there is no drunkenness. The crave for drink is, in the dipsomaniac, the outcome of disease, and of unmanageable nervous distress.

The powers of mind are overcome and dominated by a peculiar form of insanity; and the will, in all such contingencies, is latent, or powerless. It must be borne in mind that the question here is not of the actual commission of crime, but that it relates to the voluntary establishment of the criminal propensity through the act of drinking.

Similar considerations apply to the character of criminal responsibility in the *habitual* drunkard. In him, incurable physical degenerations have impaired the integrity of important organs. Structural degradations of the gravest import affect perhaps, the liver, or kidneys, or brain. These may serve as centres of irritation to the entire nervous organism; and to allay this, a crave for the lethal effects of alcohol may become overmastering. Here is the incentive to drink till the full alcoholic influence is established. Degenerations within the brain materially interfere with sound judgment and rational discrimination. Here is incapacity to reason on the wisdom and the moral nature of conduct. Will, too, is inefficient and helpless, because the diseased appetites and impulses of the animal being are stronger than the determination of rational choice—and they rule the life while reason slumbers. The rigid responsibility demanded for so-called alcoholic crime should be somewhat mitigated in view of the fact that alcohol *alone*, is rather infrequently the exciting cause of criminality. Recent intoxication is generally agreeable. The mind is elated and happy. It is mainly after prolonged inebriation that the surly and truculent disposition, often attributed to simple drunkenness, appears, Then it is that strange poisons other than alcohol, have become present in the circulation. It is then that carbonic acid, urea, and other poisons not alcoholic oppress the brain, and force the mind into vicious thoughts and incentives. Under circumstances of this kind, alcohol should not be charged with the sole agency in the formation of the criminal nature; it is only one of many.

When the material instruments of the mental and moral powers are, for a protracted season, inhibited in function by the anæsthetic property of alcohol, great disturbances must ensue in the manifestations of mind and morals. Anæsthesia withdraws the nervous centres from spontaneous activity and compels the mind to assume that inferior plane of exhibition, which is merely imitative, habitual, automatic. It is impossible for a mind in which the sense of personality is wavering or destroyed to so establish its own relations with morality as to be capable of distinguishing accurately between right and wrong. To perceive what is right requires alertness and the intellectual power of clear discrimination. To recognize wrong requires the same mental properties, and also a sensitive condition of the moral faculties—which is quite inconsistent with the torpor imposed by alcoholic anæsthesia. The questions often propounded in courts of law respecting the moral capacity of criminals are in substances these: "Could the man distinguish between right and wrong? Did he know when he committed the act, that he was doing wrong?" These questions embody what the courts in England and America insist shall be a real test of legal responsibility for crime. But the power of discriminating between the fine shades of the moral qualities must be weakened when consciousness is defective; and it must be defective in some degree in every grade of anæsthesia. The law recognizes the fact that the man drunk is insane. There is actually, and founded upon the incontrollability of the mind in drunkenness, a remarkable legal inference, to the effect that *drunkenness is no defence for crime.* True, this has the appearance of a strange inconsistency; for the law also declares that "where there is insanity, that can be no crime." The legal conclusion respecting responsibility for inebriate crime involves an assumption that may be disputed. "The law has settled that a drunken intent is just as guilty as a sober one." This may be settled as law, but it is not settled as fact. There is no pretence that the law has proven the equality, or even the similarity, of a drunken and a sober intent.

The perfect mind cannot conceive of itself as being insane. The drunkard does not believe that he cannot control his action when drunk—although he cannot. He

knows nothing of hypnotism, nor of invading poisons, unexpected and unknown. The sober *ego* is wholly different from the drunken *ego*. The body is the same, but the minds are two. A sane mind may speak for another mind also sane; their faculties are on the same plane of consciousness, by reason of a similar presentation of surroundings. But a sober mind cannot speak for itself as though drunken. The differing states of the mind cause it to act as two; and they can no more explain the motives and interpret the movements of each other, than a sound mind in one person can interpret the impulses of an unsound mind in some other person.

Respecting the criminal responsibility of the man who drinks from mere idleness and without any driving, neurotic stress, and who is free from congenital and from constitutional defects—the latter arising from disease or injury—and who is free from the physical degenerations of habitual drunkenness, no doubt the rules of accountability should be strict. But even in such instance, principles of responsibility should not be "lumped" or generalized. The effect of alcohol is so modified by special nervous sensibilities and peculiarities, that it is the right of every individual guilty of inebriate crime, to have his trial made a *special* one. He is entitled to a full inquiry respecting the facts that pertain to himself alone.

THE LIBRARY TABLE.

Hygienic Measures in Relation to Infectious Diseases. Comprising in Condensed Form Information as to the Cause and Mode of Spreading of Certain Diseases, the Preventive Measures that should be resorted to, Isolation, Disinfection, etc. By George F. Nuttall, M. D., Ph. D. New York: G. B. Putnam's Sons, 1893; 112 pp. $1.50.

The author first gives a general discussion on the various methods of disinfection, by means of fire, dry heat, steam, chemicals etc., together with precautions to be followed by the physician, the nurse, care of the sick room, etc., and then describes the methods as applied to each one of 31 diseases. The plan of the work will be best seen if we take a specific example.

IV DIPHTHERIA.

CAUSE: Bacillus diphtheria; obligatory parasite.

"The infection is spread through the bacilli in the sputa, false membrane, and secretions of the various diseased mucous membranes. The bacilli are probably present at times in the stools. Physicians and nurses are particularly exposed to the danger of the infection when swabbing the throats of patients, through the coughing of mucous and flakes of membrane into their faces. Lesions of the mucous membranes where no susceptibility exists predispose to infection. The diphtheria of pigeons, calves, pigs, (not determined in the case of cats) is not to be feared as a source of human diphtheria, the diseases being due to different specific agents.

As the bacilli resist drying they may be scattered about in the form of dust. In thin layers the bacilli withstand drying for fourteen days, whilst in pieces of membrane, clothing, particularly in dark, damp, and cold places, they may retain their virulance for four to seven months. A temperature of 58° C. (136° F.) kills them in ten minutes. They apparantly die in a few days in putrifying substances. The bacilli multiply at 18° C. (64° F.), and milk being an excellent medium for their growth, the milk of dairies in a vicinity where the disease prevails may be a carrier of the infection and promote the development of the infectious organism.

PREVENTIVE MEASURES

Complete isolation of the patient is necessary as long as the slightest trace of the membrane is present, and for sometime after it disappears. Children should be kept from attending school at least four weeks after the disease has disappeared. Where the disease prevails, Lœffler maintains the importance of keeping the mouths, noses, and throats of healthy children clean, using for this purpose an aromatic or other wash every three or four hours; sublimate 1 to 10,000 or 15,000; cyanide of mercury, 1 to 10,000; chloroform water, etc. For the patients he recommends a gargle every two to three hours of the nature recommended above, together with a stronger one used at longer intervals; namely, sublimate 1 to 1,000; 3 per cent. carbolic acid in 30 per cent. alcohol; or equal parts turpentine and alcohol containing 2 per cent. carbolic acid—Virulent bacilli could not be found after a few days when this treatment was followed, whereas they are to be found usually after three weeks when the ordinary treatment is pursued. Special precautions should be taken when using poisonous solutions in the treatment of children.

DISINFECTION.

At the end of the book is found an account of the methods of surgical disinfection, preparation of the patient, of the operator, dressings, etc., followed in the Johns Hopkins Hospital.

There are few men in the country who have had the theoretical training and practical experience in this line of study, which Dr. Nuttall has had, in the laboratories and hospitals of Europe and America, and who can place so much information upon the subject of disinfection, etc., in so short a space and in so few words as is done in this short book. There is really no book which covers exactly the same ground which this book does in so concise a manner and without lengthy theoretical discussions.

A Treatise on Diseases of the Rectum, Anus, and Sigmoid Flexure. Joseph M. Matthews, M. D. With six chromo lithographs and numerous illustrations; Handsomely printed and bound; pp. 537. New York: D. Appleton & Co. Sold only by subscription.

The title of this book, and the author's name, are almost sufficient introduction to the public.

There are many books. Some should never have been written, but it would be well if we had more such practical and thoroughly valuable works, as the one under consideration. Prof. Matthews is one of the able surgeons of America who has devoted his time and study to diseases of the rectum. He has reached success and eminence.

This work illustrates the radical changes that surgery has undergone more fully than any other that we have seen. The author gives his opinions in a most positive and decided way, dealing exclusively with the present. In addition to the regular subject matters of works of this class, the author has introduced many new subjects, viz: Diseases of the Sigmoid Flexure; antisepsis in rectal surgery, etc.

Among the many good things that commend the book, we notice the sound advice on diagnosis. "I believe that the most important thing connected with medicine or surgery, is a correct diagnosis of disease."

Dr. Mathews strongly insists on a thorough examination of the patient who complains of rectal trouble. Without this, a correct diagnosis cannot be made, and without a full knowledge of the conditions, treatment cannot be pursued intelligently. The chapter devoted to the diagnosis and treatment of constipation is exhaustive, clean and original, showing the results and experience of a observant mind. The plates and illustrations are clear and accurate. The work throughout is a classical presentation of a varied personal experience.

While it should be thoroughly appreciated by the specialist, it should particularly commend itself to the general practitioner.

The style and artistic work of the book are characteristic of the well known firm of Appleton & Co.

Materia Medica, Pharmacy, Pharmacology and Therapeutics. By W. Hale White, M. D., F. R. C. P., Physician to, and lecturer on Materia Medica and Therapeutics, at Guy's Hospital, London; Examiner in Materia Medica to the Conjoint Board of England; Author of a Text-book of General Therapeutics. Edited by Reynold W. Wilcox, M. A., M. D., LL. D., Professor of Clinical Medicine at the New York Post-Graduate Medical School and Hospital; Assistant Visiting Physician to Bellevue Hospital; Fellow of the American, and of the New York Academy of Medicine, etc. 8vo, 607 pages. Cloth, $3.00. Publishers: P. Blakiston, Son & Co., 1012 Walnut Street, Philadelphia.

The text is well arranged, the definitions are comprehensive and statedin terse language, while the divisions are clearly drawn. The appendix of non-pharmacopeal remedies is an useful addition; all the better known new remedies are described. In arrangement, the work is somewhat like the well known works of Potter and Wood. The art of prescription writing receives attention; pharmacology is very fully considered and greatly adds to the value of the work.

A busy physician has no time to go into deep researches. What he wants is fact, and this is what we see in the book before us.

A Manual of the Practice of Medicine. Prepared especially for students, by A. A. Stevens, A. M., M. D. Instructor of Physical Diagnosis in the University of Pennsylvania, etc. Illustrated. Philadelphia: W. B. Saunders, 1892. Small 8vo. Pp. 501. Price, $2.50.

An examination of this book shows it to be a work that is useful, not only from its own merits but it also presents in condensed form the views of many authorities on the subject.

The author has done his work in a thorough manner. Especially is this true when we note how he dwells on symptomology, and the relations of various symptoms to each other. The treatment given, is brief, yet in accordance with the accepted method of today. The definitions are clear, concise and exact while the pathology and etiology are equally lucid.

Yet it is to be remembered that works of this class should not prevent the student from referring to more comprehensive authorities. As collateral reading we know of none better than the book before us.

CURRENT LITERATURE REVIEWED.

AMERICAN JOURNAL OF MEDICAL SCIENCES.

The January number contains the following articles:—"The Albuminuria and the Bright's Disease of Uric Acid and of Oxaluria."

Dr. DaCosta discusses those cases of Bright's disease originating in excessive uric acid formation or in oxaluria, reviewing the symptoms of a malady in which digestive disorder occurs, and in which the disturbed nutrition manifests itself in the urine, chiefly by the high specific gravity, the urates and the presence of albumin and casts that are commonly thought to indicate Bright's disease. He remarks that dyspeptic symptoms are rarely absent, though they may be very slight. The circulation is prone to be irregular, sometimes rapid, sometimes slow. Rigidity of arteries, or even tension, which is said to belong to the uric acid diathesis as well as to the contracted kidney, he has rarely noted. The hypertrophies and other cardiac lesions of Bright's

disease are absent, as are dropsy and eye lesions. A symptom worthy of note is the slight rise of temperature in the afternoon. The characters of the urine are very significant. There is the high specific gravity in a urine that is about the normal amount, or, a little scantier than normal. The urine, on standing, deposits urates, sometimes even uric acid, very often mucous. Crystals of oxalate of calcium may take the place of the urates or alternate with them. The total solids are increased. The amount of albumin is generally small, varies much with the time of day, and is mostly in the morning urine or that voided after breakfast. Casts are scanty or altogether absent. In character they are hyaline or epithelial, rarely markedly granular, never fatty.

The main difficulty of diagnosis is to distinguish between beginning contracted kidney and this affection. In advanced cases there is no difficulty. The doctor believes that the instances of diatetic albuminuria reported are in reality cases of this affection, as are also those cases where the albumin appears after severe exertion. The form of albuminuria under consideration may be met with at any age. It is rare among children and old persons. It is common in growing boys. As is Bright's disease it is much more common in the male.

The prognosis is favorable, though the cases may be of long duration, with occasional reappearance of albumin in the urine. Yet, from very long continuance of the disorder, fibroid changes may take place and interstitial nephritis result.

The pathological state is essentially a congestion of the kidney, with—should the hyperæmia persist—slight local inflammatory changes in the vascular cortex from the irritating effects of excreting increased amounts of ill-formed or broken-down tissue, in the shape of urea, urates, or, these imperfectly oxidized, as oxalates.

The treatment must not be that of Bright's disease, as commonly understood, but largely that of the underlying state, a state that we are familiar with as lithæmia, or as oxaluria. The labor of the kidneys must be lessened, as in Bright's disease, by close attention to diet. Green vegetables and fruits are freely allowed; tea, coffee, and cocoa are permitted, if sweetened but slightly. The white meat of poultry and game may be moderately taken, but the meats containing much nitrogen are forbidden. Milk has not been found especially useful. Sugars, and those vegetables containing sugar, are to be avoided. As in all forms of albuminuria, it is important to keep the kidneys flushed out by the use of pure water or the various diuretic waters. Alcoholic drinks ought to be avoided. Bathing is clearly indicated, and of the good results of moderate exercise in the open air the reporter has seen many striking examples. Among medicines, laxatives are very important. A course of muriate of ammonia, or, from time to time, of iron, is recommended. In the cases with oxalates, nitro-muriatic acid remains a standard remedy. We must not overlook the heart, and may have to meet any irregularity it exhibits from the heavy work thrown on it, by the use of digitalis and strychnia.

"Tenotomy by the Old Method."

In this paper Frederick Treves forcibly presents the claims of the open method of performing tenotomy; as by this means the operator can be certain that the proper constricting bands have been severed. The operation was abandoned because an open wound was a terror to the surgeon, a condition of things that has happily ceased under modern antiseptic methods. If a tendon can be easily and certainly divided through a small skin puncture, as the tendo Achillis, then there can be no reason for employing a larger incision. On the other hand, if the position of the tendon or band be such that its subcutaneous division is attended with the very least uncertainty, then it should be freely exposed by turning back a suitable flap of skin.

"Tuberculous Pericarditis."

Prof. Osler writes:—Tuberculosis follows hard on rheumatic fever as a cause of pericarditis. Tuberculous pericarditis is not limited to any age, and is due, in a majority of instances, to infection of the membrane from caseous mediastinal glands. The disease may be confined to these glands and to the pericardium. A second, less common, mode is from the pleura or from the lung, and, lastly, there are instances in which the pericardium appears to be involved with the pleura and peritoneum in a general tuberculosis of the serous membranes.

Morbid Anatomy.—Practically there are two groups of cases: those with firm adhesions between the pericardial layers, usually, with great thickening; and those with recent exudation, fibrinous, sero-fibrinous, hæmorrhagic, or purulent. The cases with adhesions are most numerous. Both layers are, as a rule, uniformly thickened. In other cases the process is more local, and the synechia may be limited to the front of the heart, leaving large portions of the base and of the left auricle free. There is enlargement of the heart, which may reach an extreme grade. In the cases with effusion there may be a simple plastic exudate, similar to that in rheumatic pericarditis, with little, or no effusion, and with scarcely any thickening of the membrane, the eruption of miliary tubercles, alone, indicating the nature of the process. More commonly there is extensive sero-fibrinous exudate consisting of flakes of lymph, and a turbid serum. In some cases, the exudate is hæmorrhagic, and the membranes here may be deeply engorged, and hæmorrhagic foci be seen in them. The color of the effusion may be bright red, but is more commonly a reddish-brown or chocolate.

In the clinical history, four groups of cases may be recognized:

First. Latent tuberculous pericarditis; the disease being discovered accidentally.

Second. With symptoms of cardiac insufficiency following the dilatation and hyper-

trophy consequent upon chronic adhesive pericarditis. The clinical features are really those of cardiac dropsy.

Third. Acute tuberculosis. The clinical picture may be that of an acute tuberculosis, either general or with cerebro-spinal manifestations.

Fourth. Cases with symptoms of acute pericarditis. This group, the most important in many respects, includes cases in which the pericarditis is acute and accompanied with more or less exudate of a sero-fibrinous, hæmorrhagic, or purulent natnre. Here, too, the process may be latent.

The diagnosis of tuberculosis pericarditis is extremely uncertain. In the large group of cases in which the membranes are thickened and united, the difficulties are those which pertain to the recognition of adherent pericardium. If there has been no history of rheumatism, and, if there are indications elsewhere, of tuberculosis, a probable diagnosis can be made. In the cases that set in as acute pericarditis, unless there are evidences of tuberculosis in other parts, a diagnosis can rarely be made.

Treatment. It is not improbable that tuberculosis of the pericardium, may, like that of the peritoneum, recover completely. A case, that has set in acutely, must be dealt with as any other form of pericarditis, the indications being to limit the intensity of the inflammation and to prevent the evil consequences of the presence of a large amount of fluid in the sac. We have no medicinal agents at our command which have any positive influence in controlling the ordinary inflammation of serous membranes. There is one measure on the utility of which we may rely, namely the ice-bag, applied continuously over the præcordium. It allays the pain when present, and appears to check the tendency to effusion; while under its use an exudate may be absorbed with rapidity. It is much to be preferred to blisters or the thermo-cautery. Where patients complain of the cold, Leiter's coil may be used with running water of the proper temperature. When the effusion reaches a certain grade, and the pulse is irregular and feeble, the color becoming bad, the respirations hurried, paracentesis should be performed, or, if necessary, the sac freely incised and drained.

"The Tampon in Menorrhagia" by William T. Lusk, M. D., of New York.

In this paper he urges the claims of the tampon in those cases of menorrhagia in which there is no definable cause for the bleeding and in which the curetta, uterine drainage and internal remedies fail to give relief. The method of applying the tampon receives due attention.

"Methods and Results in Cases of Tubercular Disease, Aneurism, Ununited Fractures, and Head Injuries," by J. William White, M. D.

The cases are for the most part taken from the last eighteen months service of Dr. White at the University Hospital, and include Tubercular Arthritis, Tubercular Adenitis, r eated by the removal of the glands and by the injection of an iodoform emulsion. The report also contains an account of five cases of Aneurism which were treated by compression in some cases and ligation in others. The paper also discusses excision of the elbow, of which eight were performed. One case of Lupus of the face was cured by Tuberculin. Delayed union and ununited fractures, with the various operations resorted to in their treatment are discussed, together with the several cases. Head injuries—All depressed fractures whether simple or compound are elevated. The report includes eight cases of trephining, of which six recovered.

The paper is to be continued in the next issue.

"The Cholera of 1892 in New York: its Prophylaxis and Treatment," by Reynold W. Wilcox.

"History of the Recent Outbreak of Epidermic Cholera in New York."

"The Bacteriological Examination of the recent cases of Epidemic Cholera in the City of New York," by Edward K. Dunham.

In these three papers the recent outbreak of Cholera is reviewed in its different lights and the measures taken for its prevention and treatment are fully discussed. The report on the bacteriological examination of the discharges is illustrated by wood-cuts of the various appearances of the cultures at the different stages of development.

UNIVERSITY MEDICAL MAGAZINE.

The most important practical article in December's issue, is the one offered by Dr. Traill Green, "Ergot and the Abstetric Forceps." Dr. William Carpenter's paper "A Clinical Study of the Gonococcus" received the prize offered for the best clinical study of a surgical subject by a member of the graduating class, University of Pennsylvania, 1892. The question raised and the point sustained, by careful microscopical and laboratory work, is— as to whether blenorrhagia is always associated with an individual microorganism, which either by its form, grouping, color, reaction, method of growth, or inoculation, or by all these characteristics combined, is so distinctly different from all other bacteria, that with absolute certainity it can be regarded as the cause of the disease, and that when discovered it constitutes an absolute proof of the presence of true gonorrhea." Dr. Wood in a "Memoranda" entitled "Notes on Quinine Idiosyncrasies" calls attention to two remarkable cases of cinchonism.

N. Y. JOURNAL OF GYNECOLOGY AND OBSTETICS.

An uncommonly good paper, is a translation of Professors Crede and Leopald's treatise, "The Obstetric Examination," by Dr. Edgar. The subject is well illustrated, and considered under two heads, external and internal examination.

Dr. Allen Thomas gives a brief statistical report of and remarks upon a period of Obstetrical Service at The New York Emigrant Hospital. Several other articles of minor importance complete the December issue.

PERISCOPE.

THERAPEUTICS.

Salol has at last been obtained in solution as a pleasant, palatable liquid. Elixir of salol as described, is a solution by mechanical means only, of 5 grs. of salol in each dessert-spoonful making a palatable liquid, the advantages of which can be clearly seen in the fact that it renders administration of salol very easy, especially to children and those who can not take powders or pills.—Medical Era.

Paraldehyde.

This remedy is considered in a paper in "Notes on New Remedies." Summing up in the briefest possible form what has been said about the properties of paraldehyde, it is found:

1. That it is an efficient and safe hypnotic.
2. That it is sometimes effective where chloral hydrate fails.
3. That it is free from injurious action on the vital functions.
4. That it even facilitates the digestion of fibrin.
5. That in proper dosage it may be prescribed without apprehension.
6. That it is conveniently and agreeably given in mixture form.

Evidences of no little weight of the general usefulness of paraldehyde is afforded by the fact that it has been adopted into the German, Italian and the British Pharmacopeias.

It should also be reorded that, in common with many other sedatives, paraldehyde also has been recommended as an antidote to strychnine poisoning.—Med. Rev.

Some Internal Uses of Chloroform.

We find the following in the Memphis "Medical Monthly:" In gastralgia with dilatation of the stomach, in the treatment of nervous vomiting, and of the vomiting of pregnacy, chloroform water in the dose of a small teaspoonful every half hour or hour, is a very useful remedy.

In false croup, employed in the proportion of one to ten drops in an ounce of water, to which is added a little glycerine; dose, one teaspoonful every half hour; the effect is a very happy one.

In ulcer of the stomach, small doses of chloroform given internally will often remove the pain and stop vomiting.

In the treatment of whooping cough, three to six drop doses of chloroform in syrup will bring about very good results.

In the albuminuria and anasarca of pregnacy, chloroform in twelve to twenty drop doses in sweetened water causes a rapid diminution in the albumin and the disappearance of the anasarca.—Med. Rev.

Use of Ipecacuanha in Uterine Inertia.

Drapes says this remedy in simple atony of the uterus is a powerful agent in producing uterine contraction during the first and second stages of labor. In general, two or three doses of from ten to fifteen drops of the wine of ipecacuanha, given at intervals of ten minutes, produce in a short time marked activity of uterine action and a rapid birth. It is much better than ergot, as it does not produce tetanic contraction, but only induces normal and regular expulsive efforts.—Med. Rev.

Who Owns the Prescription?

This has been answered by a Cincinnati court as follows (Meyer Bro's Druggist):

"A druggist is under no obligation to furnish a copy nor to permit any one to make a copy of prescriptions. When he has compounded a drug and delivered it to the proper party, the paper upon which the prescription is written becomes his. Druggists keep prescriptions for their own protection. If, as the plaintiff testified, defendant had agreed to furnish plaintiff with a copy whenever he called for it, that agreement was gratuitous and without consideration and therefore void."

This is in accord with other decisions which we have published.

How would it do for druggists to print this decision on the back of their prescription blanks?—Med. Rev.

Aristol.

Nearly all drugs, whether or not originally intended for external use, have been applied at one time or another, to local, exterior traumatisms in the once current belief that remedies that are good within should be good without. The conspicuous failure of the many attempts to obtain a perfect dressing for suppurative conditions which should be equally good for accidental or operative injuries constitutes an interesting section in the history of surgery. Even the latter surgical dressings have, for the most part, proved failures in some essential quality. Some of them possessed an unspeakable odor, others were toxic, many were difficult of application, and a further series, though admirably adapted to a particular surgical requirement, failed as complete surgical dressings. The promptness, for instance, with which Aristol was adopted by practitioners demonstrated the great, existing need of an adherent, stimulating, safe and effective cicatrisant. The evidence thus far appears to demonstrate that Aristol has not disappointed the profession in any of these particulars.—Miss. Med. Monthly.

MEDICINE.

Treatment of Catarrhal Sore Throat.

Dr. Carter mentions a number of remedies for this class of cases which should be selected according to the variety and degree of inflammation present, and the condition and idiosyncracies of the patient. Hot wine gargles are recommended by some. Menthol, being an antiseptic and local anodyne, is useful, contracting the capillaries and checking secretions. In dry, cold weather, when the mucous membrane is parting with its moisture, which is nature's covering cloud, treatment with vaseline spray acts well. Cream and ice are particularly valuable in children who cannot use spray or gargle. The essential oils, by spray or nebulization, are also valuable in these dry forms. Solutions of chlorate of potash and permanganate of potash and other astringents are useful in this form of sore throat, when the secretion is profuse. They may be used either as spray or gargle. Where the secretions are too albuminous, or where there is a tendency to the formation of penlicles on the tonsils, a spray of peroxide of hydrogen is indicated. Yerba reuma, by atomization, is sometimes very valuable. In nearly all cases where there is general febrile disturbance, aconite and belladonna are invaluable.—Jour. of Am. Med. Asso.

Tuberculous Ulcers of the Stomach.

Dr. J. H. Musser (Medical Press and Circular) says:

1. Tuberculous ulceration of the stomach is rare.

2. It occurs more frequently in childern.

3. It is never primary.

4. Gastric infection is probably due to the voluntary or involuntary swallowing of sputum.

5. The presence of the bacillus tuberculosis is the only positive proof of the nature of the ulceration.

6. The anatomical peculiarities of this form of ulceration include the following:

The seat of the ulcer is in the lesser curvature, although it may be found in any position.

More than one ulcer is usually seen.

The ulcers are large and irregular.

Miliary tubercles on the floor of the ulcer, in the submucous coat, are seen.

The ulcers are near vessels, and the results of vascular ulceration are found.

Small caseating masses are seen in the ulcer or at a portion of the periphery. Similar collections are found in the territory adjacent to the ulcer, in the submucous coat.

The peritoneum is studded with miliary tubercle very often.

Neighboring lymphatics are often involved.

7. In the large majority of cases, there were no symptoms during life.

8. Sudden hæmorrhage is a frequent symptom and cause of death; it has been particularly noted in children.

9. Epigastric pains and vomiting may occur.

10. The presence of gastric symptoms of this kind, occuring in the course of tuberculosis, is significant of possible ulceration.

11. In view of the fact that the swallowing of sputum is posibly dangerous, expectoration should be insisted upon in adults and its method taught to children.—Amer. Lan.

NEWS AND MISCELLANY.

Dr. Robert Crawford, of Cooperstown, Venango Co., Pa., died at his home on Chrismas morning after an illness of theee or four days. Dr. Crawford has been in active practice for over fifty years; was a very able man and stood among the leaders in the profession for a generation.

ARMY AND NAVY.

FROM DECEMBER 18, 1892, TO DECEMBER 31, 1892.

Leave of absence for fifteen days, to take effect on or about January 11, 1893, is hereby granted Captain W. B. Banister, Assistant Surgeon, U. S. Army.

1st Lieut. Frank T. Meriwether, Assistant Surgeon, is relieved from further duty at Fort Adams, Rhode Island, and assigned to duty at Madison Barracks, New York.

The Leave of absence granted Captain Louis W. Crampton, Assistant Surgeon, U. S. Army, is extended three (3) months.

By direction of the Secretary of War. two months ordinary leave of absence, is granted Captain Marcus E. Taylor, Assistant Surgeon, U. S. Army, to take effect upon the expiration of his present sick leave.

1st. Lieut. James D. Glennan, Assistant Surgeon, U. S. Army, will upon his arrival at his station (Fort Sill. Okla. Ty.) from leave of absence, proceed immediately to San Antonia, Texas, and report in person to the commanding general Dep't. of Texas, for temporary duty in the field with proofs operating on the Mexican border.

The leave of absence for seven days granted 1st Lieut. Frank T. Meriwether, Assistant Surgeon, U. S. Army, is hereby extended ten days.

1st Lieut. Benjamin S. Ten Eyck, Assistant Surgeon, U. S. Army, is relieved from duty at Fort Leavenworth, Kansas, and will proceed at once to San Antonia, Texas, and report to the commanding General Department of Texas for duty with the troop now in the field.

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ORIGINAL ARTICLES.

W. H. Link, Petersburg, Ind.
Object Lessons in Gynecology 41

Frank P. Norbury, M. D., Jacksonville, Ill.
Criminal Responsibility in the Early Stages of General Paralysis 44

CLINICAL LECTURES.

Henry W. Cattell, A. M., M. D.,
Inflammation; Pus; Positively and Negatively Chemo-Lactic Substances 48

COMMUNICATIONS.

Jno. G. Cecil, M. D., Louisville, Ky.
The Curette in Obstetric and Gynecological Practice 50

SOCIETY REPORTS.

The Surgical Society of Louisville 53
The Clinical Society of Louisville 59

EDITORIAL 61

TRANSLATIONS 65

ABSTRACTS 67

THE LIBRARY TABLE 73

CURRENT LITERATURE REVIEWED 74

PERISCOPE

THERAPEUTICS 75

MEDICINE 76

SURGERY 77

OBSTETRICS 78

NEWS AND MISCELLANY 78

ARMY AND NAVY 78

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REFERENCES:

Professors H. C. Wood, D. Hayes Agnew, Wm. Pepper, Alfred Stillé, William Goodell, R. A. F. Penrose, J. M. DaCosta, Charles K. Mills, James Tyson, and Dr. Lawrence Turnbull; Professor William Osler, of Johns Hopkins University; W. C. Van Bibber, M. D., Baltimore, Md.; W. W. Lassiter, M. D., Petersburg, Va.

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ORIGINAL ARTICLES.

OBJECT LESSONS IN GYNECOLOGY.

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IV. TIMIDITY AMONG COUNTRY DOCTORS.

There is a great deal said about the timidity of the country doctor, and our city cousins often marvel at our hesitation and no doubt feel sorry for us without reflecting on our environments or understanding the conditions which either favor or hinder successful work. Among us there is no lack of boldness except when we lack exact information. We are far away from dissecting rooms, and our anatomy consists of what we learned while at school with what we can acquire by occasional references to Gray or some other text-book. We remember a great deal of theoretical teaching which blessed us in student days, and now and then recall a practical lesson which some one of our teachers gave, that serves to guide us through a doubt or difficulty. We are all-round specialists. To-day doing an abdominal section, to-night a high-forceps delivery or a podalic version, to-morrow amputating a toe, removing a pterygium, trephining for fracture, or pulling a tooth, then hurrying away to a case of typhoid fever or cholera infantum. Being well-grounded in the branches of medicine necessary to do all these varieties of work with credit to ourselves and satisfaction to our patients, we must, of necessity, be good in all lines and exact and thorough in none. Our obstetrics is better than that of the city surgeon's, but our surgery not so good. Our surgery is better than that of of our city friend who devotes himself to obstetrics, but our treatment of the eye is not up with that of him who treats the eye alone. Our general practice in systemic diseases is not equal to that of Pepper or DaCosta, but we can reduce a dislocation or adjust a fracture better than either of them. There is a certain boldness, too, which prevails among hospital physicians and surgeons, because of the shortness of the time during which professional relations exist between them and their patients, and the lack of severe personal responsibility which of necessity obtains among them. Of course the hospital physicians or surgeons are responsible to their conscience, and we believe they have as high a standard of rectitude as any set of men in the world; but if a bad result follow their work, or they decide to try a new method or a new line of treatment, they do not have to explain to the friends of the patients and defend it from the harsh criticisms of envious rivals.

We in country practice while losing a patient are always losing a personal friend, and not seldom alienating a whole family. This fact often makes us appear to hesitate where our friend of the hospital staff would cut the Gordian Knot with his scalpel and save a life, which, at the worst, would undergo no more risk from the operation than from the effects of the disease itself. The bread and butter argument creeps into our lives when we try to be most unselfish and we hesitate to take a course not backed by authority, because we get the moral support of our brethren, hence the support of public

opinion, only by treading the beaten path. The man in the city being more a law unto himself, and having charge of those who are looked after by the charity of others, is expected, occasionally, to strike out new roads for the benefit of mankind and for the purpose of settling doubts, or establishing methods or remedies that meet new demands. The country doctor is to a large extent a slave to text-books. What exists between the leaves of conceded authorities is to him the garnered wisdom of ages; and the cautions and exceptions addressed to him by his well-thumbed authors, make as strong an impression as the rules and principles which they lay down for his general guidance. "It is the unexpected which always happens" say the French, and when one is in doubt it is the unexpected which he fears. Hence, text-books which ought to hold up his tired hands while the battle with disease or accident is being fought are but wavering supports, albeit the best in reach. He can not stray very far from the accepted teachings of his books, for in case of a bad result, neither expert, judge nor jury will sustain him. Medical journals and medical societies can not lift him from the slough of text-book lore, because his county society meets very seldom, and the bad state of the roads, if no other reason, keeps him at home one-half the year. Journals may keep him alive to what is going on at the great medical centres, but the new ideas put forth in them must be tried many times by others ere he ventures to try them in his practice and upon his patients.

The great names of the past are cherished by the country doctor with a reverence, which, if it did not carry with it too great a reverence alike for their teachings, might be commendable. A man, however great, must often err, and thus it is that "The evil men do lives after them," even if the good be not *all* "interred with their bones!"

The country doctor, in his daily work, never comes from under the shadow of his early teacher's influence. Of course, the exigencies of practice soon show him that they lack the infallibility with which his student imagination invested them. Yet their methods and precepts are remembered and often followed long after he has discovered that many of them were very ordinary men who had stepped into the place of teacher, not by reason of any inherent quality of preëminent fitness for the place, but through some adventitious circumstance or attribute, foreign alike to professional character, and not necessarily coexistent with great professional attainments. As the faculties of none of our colleges contain more than two or three truly able teachers, it follows as a matter of course, that the vast majority of the teaching is done by a host of mediocres, who echo alike the errors and the truths of the past, mixing a great deal of what must be unlearned with what is known to be true, and tarnishing the brilliant things of others with the leaden hue of their own stunted minds. All this has a disastrous effect on those men who must go out to the world relying upon precepts from such a source for guidance.

The modesty of the practitioner remote from medical centres adds to his timidity from other causes. Feeling his lack of exact knowledge, and greatly magnifying the advantage of his more favorably situated brethren, he often gives nature a longer trial and a better chance than she would have in a city or larger town. This fact as often redounds to the benefit of the patient as a more active policy; especially, if that policy has no better reason behind it than enthusiastic boldness and strong self-confidence. If any one asserts his superiority, the country doctor not knowing how little, *how very little* difference there is between the great lights in medicine and the more humble of its followers, rapidly concedes all that others claim for themselves; and, knowing that he cannot perform the wonders which others daily claim, takes it for granted that he can not be up to their standard, and blames his opportunities for much that is more fancied than real. He is ready at all times to confess his defects; and, on account of them, he now and then withholds his hand, because he doubts its strength and skill. He performs his alloted tasks, feeling only that his conscience does not reprove him for not being as good on every line as some of his city friends are in some one particular field of work.

The prevailing tone of both stereotyped and current medical literature has much to answer for in the matter of multiplying the doubts and increasing the hesitation of the country physician. We

are constantly warned at the threshold or end of the description or explanation of every operation or manipulation of magnitude or difficulty, that only the specially trained or skillful should undertake it; that the skill to do most things is only vouchsafed to a few of the Lord's anointed, and that it is much safer to call counsel than to undertake some delicate or dangerous piece of work until we have become specialists. In other words, we must not go near the water until we have learned to swim. This makes a fine harvest for those who have learned to swim; but it leaves us just where we began, standing on the bank shivering with dread at the water, while our patients drown before our eyes for want of that help which we ought to give.

Another cause for our timidity and backwardness is the meager pay which we receive for our best and utmost efforts. To buy the best-books and to take the highest and best class of current literature costs money, while a liberal supply of necessary instruments is to the country doctor an expenditure of almost a small fortune. Being a representative of all the specialties and the practice of medicine also, to be moderately well equipped he must have a number of instruments for each line of work and the special instruments of diagnosis and treatment that pertain to successful practice in the mere application of remedies to the cure of disease non-surgical in character. The city practitioner often gets more for the performance of one operation than the successful and skilled country doctor does for a year's work. As the gratitude of patients is in a direct ratio to the size of the fee paid, it can very readily be seen that there is small encouragement to anything like boldness in action or fullness and completeness of equipment.

Notwithstanding the truth of the foregoing, the history of medicine shows that the country doctor has at times risen to the level of the heroic, and, in the absence of sustaining counsel, by some bold act or sudden inspiration become an epoch-maker in the progress of a great and noble science. We remember with pride that the whole science of abdominal surgery owes its origin to the backwoods surgeon of Kentucky. We like to recall the fact that Baynham, another country doctor of Virginia, operated successfully for ectopic pregnancy long before the advent of Lawson Tait. It was J. Marian Sims, a country doctor of the South, who put the operation of vesico-vaginal fistula on the list of curative lesions and who revolutionised the whole practice of Gynecology.

It was a country doctor in Ohio who first made the improved Cæsarean section, sewing the uterine walls with silver wire, a procedure which, under the name of the Sænger operation, has led a great many to suppose that we owe it, like other good things, to Germany. It was Benjamin W. Dudley, another country surgeon, who made a lithotomy record so high that no man has ever yet been able to duplicate it, even though we have, by the aid of Germany, discovered a universal cause for all surgical failures—*bugs*. What a miserable man this Dudley was who went on making one lithotomy after another, curing his cases, while blissfully ignorant of the fact that everything he touched, even the very air he breathed, was literally swarming with bacteria or micrococci. Had he lived to the present time, he might, by the aid of chemical solution, have run his mortality up from four per cent. to ten or twenty per cent. In fact, by striving hard, he might have equalled some of the best German operators in piling up a mortality list.

Head Injuries with Aural Complications.

Dr. J. E. Sheppard (*Archives of Otology*) says:

1. That the division made by Dr. Buck of fractures of the temporal bone into (*a*) "fracture or disastasis of the tympanic or squamous portion, in the region of the middle ear, without implication of the pars petrosa; and (*b*) fracture of both the tympanic and petrous portions," is an entirely tenable and eminently practical one.

2. That fractures of the temporal bone without fatal consequences, and even without loss of hearing, occur more frequently than is generally believed.

3. That in all cases of suspected fracture of this part of the skull, a thorough examination (by speculum and reflected light) should be made of the external auditory canal, of the membrana tympani, and, so far as possible, of the tympanic cavity, as an aid to diagnosis and prognosis, and to obtain any indications that may exist for treatment.—*Am. Lan.*

CRIMINAL RESPONSIBILITY IN THE EARLY STAGES OF GENERAL PARALYSIS.

FRANK P. NORBURY, M. D., Jacksonville, Ill.

At no time in the history of civilization have influences so comprehensive and far-reaching been contributory to spurring men to action beyond their capacities to bear as to-day. We are "a restless nation possessed of an energy tempted to its largest uses by unsurpassed opportunities," the disastrous results of which are shown in premature decay, in that most prevalent disease, neurasthenia, with its attending miseries and in the increase of that form of mental derangement known as general paralysis of the insane. While it is true that syphilis is the basis of much of general paralysis, yet, the exciting cause, even in these cases, is over-work, brain tire and abuse of the nervous system. The American disease, neurasthenia, offers hope for recovery; the mental derangement, general paralysis, is a disease that carries its victims sooner or later, to the grave. A study of this most protean malady is of great importance to every physician, for its early recognition will often modify the progress of the disease and prevent crime by placing the patient under proper treatment.

Further, we are hopeful that with the advancement and dissemination of the clinical knowledge of this disease it will be recognized while in its functional stage and here arrested. Folsom, of Boston, has (of the American writers,) given us the most classical description of this disease, which I hear quote.

I. GENERAL PARALYSIS.

"General paralysis is clinically a primary disease, sometimes acute, but for the most part subacute and chronic in its early manifestations, with a definite recognizable anatomical basis and progressive, in which symptoms of brain failure, too slight to be remarked at their actual incipiency, are rapidly or slowly succeeded by a cerebral inco-ordination, both psychic and motor, including under the term psychic the so-called moral as well as purely intellectual attributes of the mind; a disease which in its course involves every function of the brain and may in its various phases exhibit many of the symptoms observed by the neurologist, as well as most of those known to the alienist, first impairing, then paralyzing in its steady progress all those high qualities, mental and physical, that distinguish civilized man; and finally, after the wreck of mind and body destroying life itself."

The early symptoms will concern us in this paper; they have not been very satisfactorily studied, because the attending physicians have not distinguished general paralysis from other forms of insanity and as a consequence the prodromal stage is generally passed before the alienist meets the case. The family or friends have been aware of a change in the character and disposition of the patient, but have not been alarmed, "thinking it would pass away."

But no! The case is progressive, and some day they realize that insanity exists and forthwith apply for hospital treatment, too late, however, for the benefit of the patient. Brush says it is unfortunate that the clinical features of the early symptoms of general paralysis are not more graphically defined, and attributes the cause to the lack of observation on the part of the attending physicians, who in a very few instances have recognized the disease, even after it has advanced to such a degree as to require asylum care.

The diagnosis of general paralysis is rarely made, as is evidenced in the following diagnosis taken from twenty-six cases coming under my observation during the past four years: Nervous prostration, melancholia, traumatism, la grippe, brain softening, alcoholism, morphine habit. In the majority no form of insanity is given and the cause is stated as unknown.

Folsom, of Boston, and Hughes, of St. Louis, have exhaustively studied the early symptoms of general paralysis. Folsom says the earliest signs of general paralysis are of the slightest possible brain failure. If, for instance, a strong, healthy man, in or near the prime of life, distinctly not of the nervous, neurotic or neurasthenic type, shows some loss of interest in his affairs or impaired faculty of attending to them; if the become varyingly absent-minded, heedless, indifferent, negligent, apathetic, inconsiderate, and although able to follow his routine duties, his ability to take up

new work is, no matter how little, diminished; if he can less well command mental attention and concentration, conception, perception, reflection and judgment; if there is no unwonted lack of the imitative, and if exertion causes unwonted mental and physicial fatigue; if the emotions are intensified and easily changed or excited readily from trifling causes; if the sexual instinct is not reasonably controlled; if the finer feelings are even slightly blunted; if the person in question regards with a placid apathy his own acts of indifference and irritability and their consequences, and especially if at times he sees himself in his true light and suddenly fails again to do so; if any symptoms of cerebral vasomotor disturbance are noticed, however vague or variable—then we can regard his case as one of general paralysis.

Hughes, in a personal letter to me, says: "There is undoubtedly a pre-ataxic stage of general paralysis; a hyperæmic condition when the paretic individual engages in, or is inclined to engage in, business and other ventures having few features of certainty in outcome to commend them that would enlist the active financial interest of the person about to be afflicted with paretic dementia in his normal mental state. At this stage, when self-confidence is becoming supreme, and the morbid impression of conscious capacity for success in almost any undertaking is possessing and growing intenser in the mind every day, the victim of commencing paresis may complicate his social relations as he is liable to do his business affairs, and just as he might do and does do in beginning paresis, where the inital symptoms are those of mental depression or melancholia."

Savage, of England, in a paper on the warnings of general paralysis, says: There are two forms of onset of the disease—the gradual and the sudden. In the latter, there is nothing to warn before the storm has broken. In the gradual onset there is a more or less regularly progressive degeneration of mind and body, so that the highest faculties show the first signs of change and the special attainments fail before the more general; the finer social and the finer muscular adaptations fail and changes and weaknesses in mind and body show themselves. To start with the motor side: Early fatigue is most marked, and is associated with indecision, doubt and hypochondriasis. Temporary aphasia he regards as an important symptom, and is present long before change in handwriting is noticed. This change in handwriting is specially an important symptom, and is present for a year or more before signs of general paralysis are declared. Facial expression changes, the face becomes fat. The mental and moral tone is changed; the changes of temper and character are noticed early in general paralysis. Self-feeling is exaggerated, hypochondriasis is a frequent warning, and in such cases the morbid ideas are centered in the gastro-intestinal tract. The combined motor and mental symptoms lead to a diagnosis of general paralysis.

The symptoms, as detailed by these authorities, seem striking and capable of being recognized, but careful study of the patient and painstaking interrogation of the family and friends are also necessary to define a case of general paralysis. The mental symptoms are variable, but usually this feeling of well-being prevails, characterized by excessive cordiality, boasting of power and wealth, marked by extravagance in everything undertaken. Emotions are seemingly in a balance; anger is easily and hastily aroused and as easily and hastily calmed; crying and laughing alternate quickly. Moral lapses are so frequent at this time that females are assaulted, undue exposure of the person made in public places, sexual and alcoholic excesses are common, and so frequent are the varied moral lapses that the unfortunate subject, especially if he belong to the lower class of society, becomes lodged in jail for offenses committed. His irritability and anger may lead him to murder, assaults, and trespass on the rights of others. His exalted ideas of power and authority cause consternation in assembly halls, churches and in the seats of government. Such, in brief, is an outline of the early symptoms of general paralysis; the latter stages are seen within the walls of an insane hospital, where death, sooner or later, comes to relieve the weary sufferer of the burden of life.

2. RESPONSIBILITY.

Medicine and law differ radically on the question of responsibility. Scientific medicine has been the pioneer to explore the still unsettled regions of criminality among the insane, and has satisfactorily estab-

lished principles which the legal profession must sooner or later acknowledge as scientific truths. This question of responsibility, as viewed by medicine and law is, as Judge Somerville, President of the New York Medico-Legal Society, says, "the same old fight of science against the crystallized prejudices of error and ignorance."

The law, on the other side, claiming culpability when knowledge of right and wrong exists; medicine, on the other, holding there is no criminal act when the individual cannot choose between right and wrong because of the destruction of the power of self-control. The medical test is based on the presence of disease and its abnormal results on conduct; the legal test is metaphysical and theoretical. Medical diagnosis is based on pathology and experience; the legal ignores any physical condition which does not affect the moral attributes. The law cares nothing for impulse, loss of will power or sudden change of character and conduct without motives or from childish incentives. Medicine tests scientifically by taking in the whole man; it gives a study of the individual, a comparison of his mental condition when the crime was committed, with himself at periods remote and subsequent. By so doing we permit of the only rational method of determining sanity from insanity. "We supplant tradition and fiat of statutes by the facts of clinical medicine from which we draw just conclusions." We at once recognize the importance of a study of mental diseases in order to thoroughly and adequately determine responsibility.

A physician is, by right, the proper person to conduct an examination to determine the unsoundness of mind. The familiarity with mental diseases accorded him in our State by the law, requires him to acquaint himself with these diseases in order to sustain this position. That he does not do this we are painfully aware, and because of this inattention, either through ignorance or indifference, the medical profession has been made to suffer ridicule and opprobrium from lawyers, judges and the press. So far has this gone, that it has been said that any ordinary man is able to detect any form of insanity as well as a physician.

We, in the description of general paralysis, have shown the difficulty attending the diagnosis of this form of insanity and have insisted upon prolonged observation in order that no mistake may be made. The same will apply to all forms of insanity, especially so in cases involving criminal responsibility, and we reiterate that, for the sake of justice in cases presenting the plea of insanity, where doubt exists as to insanity, observations of the case be made, and preferably by temporary commitment to an insane hospital, where the experienced superintendent and other medical officers may scientifically examine the case. The want of such methodical observation has no doubt caused many innocent to suffer and many guilty to escape. Such an examination impartially pursued will render great assistance to the courts and aid in the establishment of medical expertism upon a firm and scientific basis.

3. RESPONSIBILITY IN ITS BEARING UPON GENERAL PARALYSIS.

I am sure there are many unfortunates serving sentence to-day for crimes committed, who should be treated as sick patients and given the attention they deserve. An analysis of their crimes will show that a diseased mind prompted the act and a disorganized will power permitted its commission. The crimes, if they should so be called, of a general paralytic differ from those of the normal or criminal insane. Bevan Lewis says regarding the crimes of a general paralytic as compared to the moral insane: "In the latter the crimes indicate impulsive and uncontrollable states as the result of a lowered or defective moral sense; the normal inhibitory control is wanting and instinctive impulses rise in full activity. It is not so with the acts of a general paralytic; they are neither premeditated nor impulsive, but casual, often appearing to be unconsciously performed; even if the act appear determinate its nature and consequences are wholly obscure to the agent's mind."

And here the essential nature of these acts on the part of each subject becomes apparent; the high degree of representativeness essential for the recall of similar actions previously performed and the vivid realization of the consequences of such action in the past, is here wholly wantingless; and still less is that re-representative faculty intact, which enables him to contrast the act as viewed in its nature with certain ethical canons. The

moral lapse is therefore truly significant of a clouded intellect, an act of theft may be committed with open effrontery, no attempt at concealment being made; the most wanton outrage on public decency, the most audacious libertinism, may be committed quite oblivious to being a breach of public morals. Hughes, in his letter, says: "I would suspect and recommend surveillance for a very active business man of from 36 to 45 years of age who might be found acting in a manner different from that which, up to that time was natural to him in business or social affairs, especially if his conduct was such as might be attributed to a man under the exhilaration of drink, when it could be clearly shown that the man did not indulge in alcoholic drink at all. I am convinced that a good deal of unrecognized and irreparable harm has been done to the interests of paretics and the welfare of the families by rash procedures on the part of the former, which were unnatural to them in their thoroughly sane condition by acts (business or otherwise) committed in the hyperæmic preataxic stages of this disease."

Folsom, in a recent letter to me, says, regarding the conviction and imprisonment of general paralytics:

"I do not see how it is consistent with a reasonable sense of justice to convict a general paralytic in any stage of his disease, no matter how early, and when a man of previous good character commits a crime it seems to me that he should be placed in an insane asylum for observation, if there is any doubt as to his responsibility. I have no doubt that in the near future all of our states will have laws, as some of them now have, empowering judges to send people to insane asylums for observation in case of doubt of their sanity, and that judges will more frequently use this power."

In our State we have no such provision; in fact, our lunacy law is a failure, both to the practical commitment of the insane and the protection of their best interests. The *mittimus* on which an insane person who has committed a criminal act is admitted into the insane hospitals of this State is equal to a life sentence in cases of general paralysis. It instructs the superintendent of an insane hospital "to take the body of said defendant (the hopeless paralytic) and confine him in said hospital until he has fully and permanently recovered from his insanity,"—which is when he dies. The general paralytic is not justly committed to a hospital on such a legal paper, because, *first*, he is a sick man; *second*, he is not responsible for any criminal act whatever, and, *third*, it is oftentimes to his advantage and a pleasure to his friends to have temporary absence from the hospital, and in case of impending death, to satisfy the desire of his family or friends, it may be best to remove him to his home, which cannot be done when committed on a *mittimus*.

My conclusions are, after carefully studying the medico-legal bearings of responsibility in the early stages of general paralysis:

I. General paralysis is a plea for irresponsibility.

II. No judge is warranted in committing a general paralytic to the penitentiary.

III. It is not judicious or right to commit general paralytics to insane hospitals on a *mittimus*.

IV. When in doubt as to the existence of general paralysis it is the duty of the judge or jury to forego sentence and commit the individual to an insane hospital for observation, at least long enough to determine the existence or non-existence of general paralysis.

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Collector—Mr. Trager, will you subscribe toward the decoration of the soldiers' graves? Mr. Trager—No, sir! The men whose graves I want to decorate ain't dead yet.

Poor, Dear Man!—Mrs. Grogan—An' st 't the 'roomatics thot's ailin' Hogan? Mrs. Hogan—No. He shpraint his back lasht ivenin' tryin' t' t'row me out th' windy; poor, dear man!

CLINICAL LECTURES.

INFLAMMATION; PUS; POSITIVELY AND NEGATIVELY CHEMOLACTIC SUBSTANCES.

HENRY W. CATTELL, A. M., M. D.*

Inflammation is a composite pathological process, and is the most important process with which we have to deal in the whole subject of gross morbid anatomy. There is hardly a process which starts or ends a pathological change that has not inflammation as a factor at some time or other in its course. A clear conception of this subject of inflammation, added to a full knowledge of the anatomy of the part, together with a good understanding of such conditions as infiltration and degeneration will lead you to comprehend most clearly all special pathological changes.

Changes due to irritation of the connective tissue, is a brief but unsatisfactory definition of inflammation. The usual definition is a much longer one, and is either a resumé of the process or a description of the clinical symptoms. According to Ashurst, you must consider clinically the causes, symptoms, course, termination, treatment, and pathologically, the phenomena of function, nutrition, formation and destruction.

We have first in inflammation an increased action, though this may last but for a very short time. We may have for example, an increased function in the part, which is able to accomplish more than it did before. Now, this increased functional activity may only last for a short time, say half an-hour, or even shorter. Then we shall have a lowering of function, and in case the process is continued we may have a total abolition of function. This is also true in regard to nutrition. Then as to the destruction: here we have two terminations, one sloughing or gangrene, the other ulceration. In the first form, sloughing or gangrene, we have the macroscopical appearances; in the second, ulceration—a molecular removal of the microscopical.

The sources of inflammation are twofold: first, diseased or dead cells; and second, micro-organisms. In the first case a cell, from some cause or other, dies within the body and as a result it becomes an irritant and we may have all the signs of inflammation set up. The second condition is that which is due to micro-organisms, and is the one which is now being chiefly studied. In fact, it is difficult to conceive of an inflammation which has never been affected by micro-organisms. Therefore, the usual cause is considered a combination of the dead cells and the micro-organisms.

This constitutes the clinical form, which is described in works on surgery, and which is the variety that you will be called upon to treat.

As to clinical features of inflammation, pain, swelling, heat and redness—the pain is due to the fact that the exudate presses upon the terminal ends of the peripheral sensory nerves; the redness is due to the increased blood supply to a part, with a diapedesis of the red blood corpuscles; the swelling occurs because there is more fluid in the part, containing leucocytes, micro-organisms and their products, connective tissue cells, etc. The cause of the heat is a debated question; it is uncertain whether it is due to the fact that the arterial blood is there in larger quantity, or whether there is an increased chemical and mechanical change taking place in the part, or whether we have increased heat dissipation. There have been thousands of experiments made to ascertain the cause of this, but these experiments seem frequently to contradict each other. Where there are so many theories one may be quite sure that a combination best explains the fact.

We have in inflammation a substance known as pus. This has been described in the older surgeries by various names which it is necessary for you to understand. The old idea of a laudable pus is that pus which is of a greenish hue, with not a bad odor, and which occurs in those cases which are apt to recover. Therefore, it is a healthy pus. Sanious pus is that form in which blood and pus are mixed in varying proportions, from the slightest tinge to that in which it is mostly blood. Then we have the ichorous pus—which is

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thin and acrid. We have also the muco-pus and the sero-pus in which we have mucous or serum mixed with the pus.

Now, what is pus? Chemically, pus may be described as an albuminous fluid of a specific gravity varying from 1021 to 1042, containing the peculiar constituents of the tissue, whether they be cells, salts or organic substances with a mixture of leucocytes, micro-organisms and certain chemical bi-products, such as peptones, proteid compounds and leucin. If you open an acute abscess and examine under the microscope the pus, magnified about 450 times, you will find a great number of leucocytes, and these leucocytes will be practically of one size. There will be a very few cells larger than the leucocytes, which are connective tissue cells. If you will examine closely you will find that these leucocytes possess amoeboid movement. You will sometimes be able, especially on a warm day, to examine them very easily. If acetic acid be added to the pus, we shall have a clearing up of the protoplasm and the appearance of a number of nuclei, showing that at some time or other in the life history of the cell there had been an attempt at multiplication. When the pus is first being produced we have a number of micro-organisms present; but after a time the micro-organisms become rarer and you should not be disappointed in opening a large abscess if you are not able to find any micro-organisms at all. You expect to find it loaded with various micro-organisms. But the micro-organisms have died, have undergone some form of necrosis and have been carried off. This is well illustrated in tuberculosis. You might not find the tubercle bacilli in the cheesy glands of the neck, even though you should stain for them most carefully. How will you therefore demonstrate their presence? By taking some of the cheesy material and injecting it into a guinea pig —an animal which is especially susceptible to inoculation by tubercular material—and allow the bacillus to develope tuberculosis in the animal.

What micro-organisms are most frequent in the formation of pus? Many have been described. The list is a very long one and is steadily increasing. The way to remember them is simply to note that the names of such micro-organisms usually have the prefix pyo, which means pus; frequently pyogenes-pus-producing. They are also described in accordance with their color, citreus, albus, aureus, etc.; and by their shape streptococcus, cocci in chains; staphylococcus, cocci in bunches like grapes, etc. But not all micro-organisms that are thus capable of producing pus have the prefix pyo. The bacilli of glanders and tuberculosis are cases in point.

The cholera bacillus does not produce pus. This is important, as the anti-vaccine of Haffkine is capable of being introduced into man without fear of producing an abscess; only an indurated nodule is sometimes left at the seat of inoculation.

What are leucocytes for? This is a question that has been specially studied of late. When a micro-organism gains access to a part, has it the property of attacking the leucocytes, or have the leucocytes the power of attacking the micro-organisms? Do we know that the micro-organism has the property of eating up the leucocyte which has become granular or has undergone fatty degeneration? It is no uncommon thing to see five, six or seven micro-organisms inside of a pus cell. Now, did the pus cell swallow up the micro-organism, or did the micro-organism go into the pus cell in order that it might have food? That is the question. However that may be, the fact is, that when the leucocyte attacks the micro-organism (or the micro-organism attacks the leucocyte) we have certain poisonous products, which are in themselves capable of destroying the micro-organism which produced them. This is an important point. You know that in fermentation if the alcohol reaches twenty-five per cent. the fermentation ceases. So it is here. If the micro-organism has had an opportunity to grow, it produces a poison which is destructive to producer. Pathologists are now endeavoring to isolate such chemical substances from the micro-organisms with intent to confer immunity to disease by inoculation.

For a scald or burn there is nothing superior to wet bicarbonate of soda applied to the part.

According to Dr. Miles there is an abortive form of typhoid fever. These attacks usually last from nine to twelve days.

COMMUNICATIONS.

THE CURETTE IN OBSTETRIC AND GYNECOLOGICAL PRACTICE.

JNO. G. CECIL, M. D., Louisville, Ky.

The curette, like many other surgical instruments, has experienced seasons of favor and disfavor. At no time, however, as at the present, has its usefulness been so fully recognized. So much have the dangers attending the use of the instrument been magnified, that unquestionably there yet lingers in the minds of many, strong prejudices against it.

Many, in fact most of the objections that justly obtained before the application of aseptic precautions, are now no longer tenable. It can never be maintained that the use of the curette is entirely devoid of danger, but hedged about with all the modern methods of preventing septic infection, it may be stoutly claimed that the danger is reduced to a minimum in any case of whatever kind, where its use is called for. So, in any case, where the indications are plain, the most cautious and timid need scarcely hesitate in its application. It is hardly necessary to add that the use of this instrument, in the hands of a bungler, or careless manipulator, is capable of doing incalculable harm, despite aseptic precautions let them be ever so thoroughly instituted.

The good results that may be had are so manifold and great, and so far outweigh the dangers, that to enter a plea for a place for it in the armamentarium of the obstetrician or gynecologist, would be a work of supererogation.

When I say curette I do not confine my meaning to those bent wire affairs which have all along been regarded as harmless, and we might safely add, almost useless, at least in gynecological practice, but to the modern improved instruments with cutting edges.

The indications for the use of a dull or a sharp curette, depend upon the exigencies of each case, and must be left largely to the judgment of the operator. There is no doubt that much of the disfavor the curette has fallen into is due to the use of a dull instrument, where a sharp one was demanded.

Before referring to the special indications for the use of the curette, and this part of my subject alone would lengthen this paper beyond its intended limits, a brief consideration of the preparations and methods necessary to its proper and safe use, will not be inappropriate.

To begin with, curettage should be dignified by the name of an operation and the antecedent preparations should be just as jealously carried out as those, for instance, for an abdominal section. Many untoward results have followed because the operator deemed it only necessary to place the patient in position, introduce an instrument, itself probably not clean, and scrape away some foreign body, or adventitious growth.

Concerning the technique of curettage, I cannot do better than follow the suggestions of that most zealous advocate of the procedure, S. Pozzi, in his recent superb work on gynecology. The patient should have a full bath the evening or the morning of the operation. The rectum emptied by enema, the bladder by catheter, the external genitals thoroughly washed with soap and water, and afterward with a strong antiseptic solution; vaginal injections of sublimate solution 1 to 2000 should be enjoined twice daily for several days prior to the operation. On the day of the operation three injections are to be given, the first two at intervals of an hour, the third at the very moment of the operation. It must be borne in mind that if bichloride of mercury is used for douchings, that gynecological patients will safely stand stronger solutions than obstetric cases. Should the cavity of the uterus need powerful disinfection, (as in certain cases of gangrenous fibromatæ, intrauterine cancer with putrid fungosities, etc.) it is advisable to extend the douchings into the cavity. There may exist a demand for continuous irrigation, if so it is readily applied by means of the irrigating curettes or other devices. Though pain in many cases is not great, yet for the sake of thoroughness and control of the patient, an anæsthetic is demanded.

The operation may be satisfactorily done in either the dorsal or lateral decubitus. The vaginal walls are separated and held apart by retractors or a suitable speculm

in the hands of assistants. The first step of the operation is to fix the uterus with tenacula or Museux forceps. The cervical canal must be sufficiently dilated to permit the easy passage of the curette. This is safely and quickly accomplished by the graduated or the steel dilators. The choice of the curette is, as has already been hinted at, not a matter of indifference. In general terms it may be said that dull instruments are most suitable and safest for obstetric cases, while the sharp or cutting instruments are most serviceable in gynecological cases. The scraping of the cavity of the womb should be done in a systematic manner. Beginning at a certain point, say the posterior wall, every part of the surface should be carefully gone over until the starting point has been reached. During the progress of the scraping, if it is necessary from time to time to remove the detritus, this can be done by the spoon-shaped instruments, or by the irrigating tube. If it is desired the field of operation can be entirely submerged throughout the operation by an antiseptic solution, by simply elevating the hips of the patient and filling the vagina with the fluid. When satisfied that every part of the cavity has been curetted, it should be thoroughly irrigated with a hot antiseptic solution, this followed by application of some mild caustic or packed with a strip of iodoform gauze. The patient should be kept in bed for three or four days at least, even in the simplest cases. Though to emphasize the safety of this operation under antiseptic management, I have seen surprisingly good results follow the use of the curette in gynecological cases, with no bad effects whatever, that were operated upon in the University outdoor clinic, that were allowed to go some distance to their homes, and where it is certain injunctions to remain in bed were not followed. It has been extremely gratifying both to Prof. Anderson, with whom I have been associated, and myself, that not one unfortunate complication has followed this method of treatment, in the many cases that have been subjected to it, even with the rather incomplete antiseptic possibilities of an outdoor clinic. But, even with so good a record to substantiate the foregoing, similar risks are not advised, only mentioned to demonstrate the possibilities of this treatment.

The special indications are so numerous that even brief mention of them in this connection, will not be permissible. In obstetric practice, there are two conditions that demand a curette, and demonstrate its usefulness most plainly; they are persistent hemorrhage, due to retained secundines or fungous degenerations of the endometrium after labor or abortion; and the septic conditions of the puerperal patient. It is in this class of cases that the dulled curette finds its greatest field of usefulness, and yields the most brilliant and satisfactory results. Particularly in those annoying hemorrhages that follow incomplete abortions, does the curette answer the demand. Instead of temporizing with ergot, hot douches, or other hemostatics, the curette is the certain, safe, and rapid substitute. Much time and annoyance is saved, and the subsequent progress of the case is most gratifying. In the management of septic conditions that follow labor, either premature or at full term, I am disposed to claim for the curette an important place. Any one who has made even a macroscopical post-mortem observation of the endometrium of a case of puerperal septicemia can see at a glance the indication for the curette. Here is a cavity, the lining membrane of which is a decomposing mass. The most important part of the management of such a case is to cleanse this cavity and afterward keep it clean. I do not advocate inconsiderate invasion of the puerperal womb, on the contrary, unless the indications are plain, am much opposed to it. I am satisfied that many cases, especially in private practice, are lost, because we are either too slow, or else lack courage to apply remedial measures that give us the best, and often, the only hope. I refer especially to the intrauterine douches and the curette, and it should have a fair trial, even to the extent of continuous irrigation. If the continuous irrigation fails, recourse to the curette is the *dernier resort*. The curetting will not reach poison that has already been taken up by the lymphatics or bloodvessels, but it will limit the further production of it. With the curette the sloughing surface is bodily removed, and with it the focus of infection; in fact, we are treating this as we do any sloughing surface in surgical cases. It will be seen at a glance that this procedure should not be deferred too long, if we would reap the

benefit. Many cases, apparently hopeless, may be saved by this active and radical measure.

The limits proposed for this paper will forbid extended account of the application of the curette to many of the particular cases of gynecological character, or to detailed description other than what has previously been mentioned, of the method of using it.

In those obstinate cases of so-called "uterine or cervical catarrh" that become such an annoyance to the busy practitioner—and such a godsend to the poor but aspiring young gynecologist—because they are not inclined to get well, of all the curative procedures that are lauded by their respective authors, none promise so well as a vigorous attack with a sharp curette. My own experience with the curette in this class of cases has been uniformly satisfactory. The cutting must be deep enough to remove the diseased follicles to their entire depth, and when this is done, certain relief will seldom fail.

Painful and intractible cases of membraneous dysmenorrhœa can be most effectively treated and cured by judicious use of the sharp curette. The operation should be performed just prior to menstruation.

The small sized sub-mucous fibroid tumors that cause excessive and dangerous hemorrhage, can be brought under the benign influence of the curette with signal advantage. The hemorrhage in these cases is not so much from the tumor as from the uterine mucosa, which is kept in a constant state of congestion and irritation by the presence of the fibroid.

Much can be said of the value of the curette in the management of cases of uterine cancer that are beyond the reach of the more radical operations. The unfortunate patient can be made more comfortable to herself, her friends, and attendants; the rapid progress of the destructive process may be in a measure stayed; septic infection can, for a time, at least, be warded off, and alarming hemorrhages can sometimes be anticipated and put under more perfect control. The scrapings of the curette can be utilized for diagnostic purposes when cancers are suspected in the body or fundus of the womb.

Enough has been said to fully demonstrate the usefulness of this instrument in the gynecological field. While much may be said of the indications for the curette, much has also been said as to the contra-indications, perhaps too much. Many modern authorities seem disposed to ignore such contra-indications as have become classic, namely, acute inflammation in and about the uterus and its appendages, and, also, chronic inflammations in the same regions that have left the womb fixed by many adhesions, and which seem disposed to rekindle upon slight provocation.

I cannot yet bring myself to the point of advocating the bold use of this instrument in the presence of such conditions, when the results may be so dire and regrettable.

The Remedial Use of Apples.

Chemically the apple is composed of vegetable fibra, albumen, sugar, gum chlorophyl, malic acid, gallic acid, lime and much water. Furthermore the German analysts say that the apple contains a larger percentage of phosphorus than any other fruit or vegetable. The phosphorus is admirably adapted for renewing the essential nervous matter, lecithin of the brain, and spinal cord. It is, perhaps, for the same reason, rudely understood that old Scandinavian traditions represent the apple as the food of the gods, who when they felt themselves to be growing feeble and infirm, resorted to this fruit renewing their powers of mind and body. Also, the acids of the apple are of signal use for men of sedentary habits, whose livers are sluggish in action, those acids serving to eliminate from the body noxious matters, which, if retained would make the brain heavy and dull, or bring about jaundice or skin eruptions and other allied troubles.

Some such an experience must have led to our custom of taking apple sauce with roast pork, rich goose, and like dishes. The malic acid of ripe apples, either raw or cooked, will neutralize any excess of chalky matter engendered by eating too much meat. It is also the fact that such rich fruits as the apple, the pear and the plum, when taken ripe and without sugar, diminish acidity in the stomach, rather than provoke it. Their vegetable sauces and juices are converted into alkaline carbonates, which tend to counteract acidity. —*N. Amer. Prac.*

SOCIETY REPORTS.

THE SURGICAL SOCIETY OF LOUISVILLE.

Stated Meeting of October 10, 1892.

Dr. Jno. G. Cecil, Vice President, in the chair.

FRACTURE OF THE PATELLA.

Dr. W. C. Dugan: I simply present this patient to show the result of an operation for fracture of the patella. It is a little early yet to tell definitely what the result is going to be, but there seems to be a good bony union, and I believe he will have perfect motion in the joint. Eighteen weeks ago a wagon ran into this man and mashed his patella. I saw him a short time afterward and the fragments were separated at least three and one-half inches; it was a transverse fracture, with two or three fragments broken entirely out. The operation was done one week afterward, the fragment united by silkworm gut. You will observe two or three fistulas still open.

One word concerning the anatomy of the muscles of the patella. It is usually stated in our books that the quadratus extensor, or the triceps extensor, is inserted into the patella. This is clearly a mistake. By careful dissection the muscles can be removed leaving the patella attached to the ligaments and serous capsule of the joint showing that the muscles are not in reality attached. In the case above reported there was great distension of the joint at time of operation, and he had much pain from this distension. He has suffered little or no pain since being operated upon. I went to see this case without my bone drill, and holes were made in the bone with a pair of barber's scissors. He has not had an untoward symptom, and I believe will make an uneventful recovery. I am decidedly in favor of the open method of treating these cases, when there is much separation. If the fragments are in good position, that is when the muscular aponeurosis is not torn, I do not consider it advisable.

DISCUSSION.

Dr. A. M. Vance: I have never performed the operation of suturing the patella, but have assisted in several operations of the kind. I doubt very much if a bony union can be obtained in fracture of the patella without the operation advocated by Dr. Dugan; still, I must say that very firm and unyielding union can be obtained by proper mechanical means, if treatment is continued a sufficient length of time. I have several cases where a functionally perfect limb resulted; in fact, have never failed to get a very useful limb after this injury.

REMOVAL OF APPENDIX, DEATH FROM URÆMIA.

Dr. Jas. Chenoweth: I have a specimen that I would like to show: It is an appendix vermiformis removed two weeks ago last Friday, from a man thirty-one years of age, a farmer, who had always been in good health, and a strong, athletic looking subject. I saw him about a year and a-half ago with a slight attack of catarrhal appendicitis, little or no fever and not much pain. He stated to me then that he had two similar attacks two or three years before; he recovered from this attack and I heard nothing more of him until two weeks ago last Friday. That morning he came to town from the country, feeling a little sick; did not eat any breakfast; suffering some pain in the right side. I saw him two hours afterward; he had gotten very much worse; suffering intense pain; cold, clammy perspiration; suffering a great deal from shock; pulse 60 when normal, was then 82; temperature 99.5° F.; abdomen slightly tympanitic even at that time. I thought he probably had perforation of the appendix, or it was on the verge of perforation, and had him sent to the Infirmary, advising immediate operation. Two hours after reaching the Infirmary pulse was 106, temperature 101° F., and still suffering intense pain; abdomen more distended; very tender, could hardly touch him at all on the right side. I operated upon him at two o'clock, seven hours after the attack came on. I found the intestines greatly distended and very much reddened, showing evidences of peritonitis. The colon protruded as soon as the abdomen was opened; by following the colon down, without much difficulty I found the appendix low down in the pelvis, slightly at-

tached to the wall, not very firm and easily detached; it was brought up and found to be about the size of a finger, and three or four inches long. It had to be handled carefully to prevent rupture; it had not perforated but was very much distended, and evidently on the verge of perforation. The appendix when removed contained two small fecal concretions. The patient was on the table about twelve minutes; pulse at the time about 60. He was very much nauseated, and vomited severely after the operation; no action of the bowels, and still considerable distension. By repeated enemata his bowels were started, the nausea subsided, and he seemed to be doing very well. The first night after operation temperature was 102° F. but as soon as his bowels commenced to act, temperature went down to normal, running from 98.5° to 99° F. The stitches were removed on the eighth day and union had taken place. On the ninth day there was a little discharge from the lower stitch, where some fluid collected between the peritoneum and muscles; temperature on the tenth day went up to 101° F.; I made an examination and found a little discharge collected through the night; there was no inflammation of the skin and no tenderness in the right side; never had any pain after the operation. I opened the lower part of the wound and found a little cavity filled with fluid; the peritoneum had united perfectly, leaving no tenderness and no induration. On the morning of the fourteenth day temperature (which had gone down after cleaning out this little accumulation to 99° F.,) went up to 101° F.; he seemed rather restless and nervous, but talked in a perfectly rational manner and felt quite well. About two hours afterward I had a telephone message to come to the Infirmary as the man was unconscious. I went out immediately, found the patient in a comatose condition, gave him a hypodermatic injection of whiskey; pulse about 150. He never fully gained consciousness and died about 8.30 that night. He had been passing water in the natural way, and there was no occasion for using the catheter, but on my last visit to the Infirmary I introduced the catheter, and drew off some urine, found it loaded with albumen, death being due evidently to uræmia.

DISCUSSION.

Dr. E. R. Palmer: Did you make a post-mortem, and were the kidneys ever examined?

Dr. Jas. Chenoweth: No post-mortem was made, and the kidneys were not examined.

Dr. W. C. Dugan: Do you think the nephritis was caused by the anæsthetic? I have seen several cases of suppression following operation, but they came on within the first twenty-four hours, and every one after chloroform anæsthesia.

Dr. Jas. Chenoweth: I believe the man had nephritis before the operation. He became very much cyanosed when taking chloroform. While he had never been sick much, I believe that the nausea was caused by some trouble with the kidneys. I never saw a wound do better, and the abdomen was perfectly flat on the first day after the operation.

Dr. E. R. Palmer: My idea of the case is that death was caused by kidney lesions, such conditions any man who examines much for life insurance will often recognize. It is very common to find bad kidneys in young men, and I believe in this case a defective kidney was the cause of death. Of course the exciting cause was the operation, and the consequent shock.

Dr. A. M. Vance: I saw this patient in the emergency, and recognized the probable nature of the coma and was very much interested in the case. It occurs to me that probably this man may have had septic nephritis—that there may have been a septic inflammatory condition of the kidney. I think it would have been very interesting to have held a post-mortem on this case to determine whether it was ordinary nephritis, or septic nephritis. This small accumulation of pus might have been sufficient, though he did not show marked evidence of sepsis generally. It is certainly a very interesting case, and one that proves to us the rightful procedure, of always making a very thorough examination of the renal secretions whenever possible.

Dr. E. R. Palmer: Of course I am particularly interested in cases of renal lesions as a factor in fatal results, and those of us who are working strictly in that direction know how important it is to have a very careful analysis made of the urine, not simply a chemical albumen test, but a very careful examination of the sedi-

ment to try and determine if there be any renal trouble, and the nature and extent of it. But the point I want to make, and I have thought of it often, is that in this age of rapid advances of a more purely scientific nature in surgical work, that we do not insist enough upon post-mortem examinations. I do not see why every city should not have one or two men who are known as "Post-Mortem Experts." I have seen a number of post-mortems where there was extensive degeneration of the liver, for instance, in which there was not a suspicion of liver complication during life, and consequently no treatment instituted for that organ. I believe in the case reported by Dr. Chenoweth, if a post-mortem had been held it would have been found that the man had serious renal trouble which probably existed prior to the operation for appendicitis.

Dr. W. C. Dugan: I had the pleasure of seeing this case on the fifth day after operation with Dr. Chenoweth, and the patient was then suffering from nausea, otherwise he seemed to be doing very well; pulse about 78, and did not indicate sepsis. I am sure the patient died of uræmic coma as stated by Dr. Chenoweth. The question of coma after operation is one of great interest, especially as I have lost two patients recently from this cause, but the coma in both instance came on immediately. Post-mortem revealed disease of the kidney in both cases and neither of the patients had any urine after the operation.

I am sorry that Dr. Chenoweth's patient died, as it will go down as a fatal case of appendicitis, when the operation for this trouble was a complete success, the patient eventually dying from another cause.

Dr. J. M. Mathews: I think the Doctor should be commended for the diagnosis he made. I have no doubt that in the country districts, and perhaps sometimes in the city, patients have been allowed to die with appendicitis—so-called biliary colic, passage of gall-stone, etc.—without operation, when they might have been saved by surgical interference. In regard to the contents of the appendix in these cases, there is a popular impression existing, not only among the laity, but the profession, that it contains grape seed and other foreign bodies. Now, it always occurred to me that in the majority of cases the contents will be found to be fecal concretions. I notice Dr. Chenoweth in his report stated he found a fecal concretion.

Dr. W. C. Dugan: In this connection, I remember looking up the subject sometime ago, and out of 252 cases of appendicitis reported by several pathologists, there were irritating bodies found in the appendix in 112; and out of this number there were ninety-nine which contained fecal concretions or enteroliths, and in thirteen there were found various kinds of fruit seed or some other foreign body. In the majority of cases I am quite sure there is no foreign body. The hobby of grape seed, blackberry seeds, etc., is entirely a mistaken idea, in my judgment.

Dr. Jas. Chenoweth: As to the cause of the trouble in this case, I think if you will examine the specimen you will find the opening into the bowel was very small, and probably the attacks he had before were simply produced by the appendix becoming distended by fecal matter. The concretions were not very hard. I think the irritation was caused by the distension, and then threatened gangrene from the pressure. As for the uræmic coma, I believe as I look back on the case that the man undoubtedly had disease of the kidneys prior to the attack of appendicitis for which the operation was performed, and believe that the kidneys were responsible for the way he acted under chloroform; he was very much cyanosed and nauseated, more than could be accounted for in any other way, at the time, and after the operation. He had no septic symptoms at all as far as the wound was concerned; there was simply a small collection of fluid at the bottom of the wound between the peritoneum and muscles.

Dr. Jno. G. Cecil presented a paper, "The Curette in Obstetric and Gynecological Practice." (See page 50).

DISCUSSION.

Dr. E. R. Palmer: I think Dr. Cecil's paper is one of the best that has ever been read before this society. I have a number of cases of gonorrhœal endo-cervicitis and metritis constantly under treatment, and in the management of these cases I have been doing a good deal of rough curetting, but with a dull instrument. I have had no trouble in passing the curette to the fundus and following the doctor's suggestion of beginning at a certain point

and returning to that point, curetting the entire interior of the uterus, removing a considerable quantity of muco-purulent material; there has usually been considerable bleeding following the operation. The last patient I operated upon was to have returned to-day; whether there has been a continuous hemorrhage or not, I am not informed. I am certain, however, if there had been any further trouble I would have heard of it. I am very favorably impressed with the idea of free curetting. I have frequently irrigated the uterine cavity with 1 to 500 bichloride of mercury solution. If there exists an obstructed or diseased tube, then I carry my syringe up into the uterus directing the point toward that tube, and throw a stream of 1 to 500 bichloride solution, hoping it will go into the tube rather than with the fear that it may go into it. There is no question but that a great deal of this solution is left in the uterine cavity afterwards. I rather hope that some may be left there. I must say that in my experience, extending over more than twenty-five years, I have never seen any bad results further than an occasional sharp pain for a half hour or so, follow a free washing of the interior of the uterus. Of course my attention to the uterus now is confined almost entirely to that organ when it is probably the seat of venereal lesions. I shall certainly provide myself with a sharp curette and use it hereafter in these cases in preference to the dull instrument I have heretofore used.

Dr. F. C. Simpson: Just in this connection, I want to say that in the last week I have had occasion to curette the uterus of a woman who had aborted, followed by continuous flooding. I went over the whole cavity with a dull curette, removing quite a quantity of fungus material. She returned to-day and reported that the hemorrhage had entirely ceased. I examined her with a speculum and found a healthy condition. There was some little granulation around the opening in the cervix, but she had been relieved of that uncomfortable, heavy feeling, and bearing-down sensation. I simply mention this case to corroborate what has been said concerning the use of the curette.

Dr. J. G. Cecil: I have very little to say in closing. In dilatation of the cervical canal I have never used tents at all. I can frequently accomplish dilatation in a very little time to such extent as to admit of the free and easy use of the curette without anæsthesia, using a Goodell dilator. I simply dilate the cervical canal sufficiently to enable me to freely use the instrument, no further. I am very sorry that the limits of my paper would not admit of a detailed report of a number of cases both in obstetric and gynecological practice. I am more particularly interested in the use of the curette in gynecological than in obstetrical cases, and while this is a Surgical Society, still the question of its use in obstetrical cases demands some attention. I should have been very glad to have heard a discussion upon the use of the curette in obstetrical cases. While the cases I have referred to as being followed by uniformly good results in the University outdoor clinic, many of which have been put in a carriage and driven two, three and four miles, those results were obtained in gynecological cases, but I have had equally as satisfactory results in obstetric cases; and this was the point I wished particularly to hear discussed. I think the fear in regard to the use of the curette has been much magnified in the minds of many obstetricians.

Concerning infection of the puerperal womb: I have in mind now the case of a young woman who miscarried at three or four months, and had evidences of septic infection, so much so that her attending physician became very uneasy. I put this patient upon the bed and without anæsthesia irrigated the womb thoroughly, and with a dull curette scraped away everything from the cavity, and had the satisfaction of seeing the woman make a perfect recovery without any further infection. I have recently been very favorably impressed by an article, by Pryor, of New York, on this subject. He takes the position (and I perfectly agree with him) that we ought not to allow patients to die of septic infection of the womb without giving them the opportunity of the advantage and benefit to be derived from the curette, at least the possible chance of preventing the spread of infection and limiting that which has already been observed. I think before many years have elapsed the curette will be used in common practice.

PATHOLOGICAL SPECIMENS.

Dr. W. L. Rodman: The patient from whom this specimen (Testicle) was re-

moved gave the following history: He was an exceedingly robust, vigorous young man, about twenty-four years of age, sent to me by a medical friend; I saw him for the first time about ten days ago. He had a hernia on the right side, which he tells me was cured by a truss, and had been cured for five or six years. He had a retained testicle on the left side. The testicle, which was small in size and soft in feel, was found located just in the external abdominal ring. It was not possible to pull the testicles down into the scrotum, on account of the shortness of the cord. Owing to its very soft consistency, and the probable functional inactivity, I advised immediate removal. The patient consented conditionally, saying that, of course, he would like to have it removed, provided there was no chance of saving it. I told him that when we cut down upon the testicle if we found it in a healthy condition, an effort would be made to preserve it by transferring it to the scrotum, I operated upon it and after cutting down around the organ, found it very small and even softer than I suspected, and that it had undergone cystic degeneration. The testicle was immediately removed, transfixing the cord and tying each way. I am inclined to the opinion that all retained testicles, even in the inguinal canal, or outside of the external ring, should be removed. When retained in this situation they are usually small and imperfectly developed organs, without function and there is a decided tendency to undergo sarcomatous change.

DISCUSSION.

Dr. A. M. Vance: I have seen a great many cases of this character, and believe in the majority of them the testicles are practically useless.

Dr. E. R. Palmer: I believe that all testicles retained anywhere in the canal, are not only useless, but are dangerous; in the abdominal cavity they may be active and useful. I have already reported one case of a bridge builder who came to me for treatment for another trouble, having incarcerated testicles in the groins. He called my attention to this condition and asked me if I thought he could get married. I told him that I believed he was sterile, but to bring me a sample of his semen and I would make an examination of it. This was done and I found the semen utterly devoid of spermatozoa. He did marry but his wife never conceived. I have never seen a case of malignant degeneration of the testicles from being retained and have seen a great many monorchids and cryptorchids.

Dr. A. M. Vance: I have treated a great many cases for replacement of the testicles, and have often succeeded. I have a case under treatment now where a surgeon in town had applied a truss over the testicle with the idea of pressing it back into the belly. A number of times have I taken trusses off from retained testicles being treated for hernia. In the case above referred to in which there had been an effort made to force the testicle back into the abdominal cavity, I have succeeded in getting it down in a month or six weeks into the top of the scrotum by the application of a truss over it and careful manipulation. I believe in the majority of infantile cases, where the testicle is out of the canal at all, or even approaching the external ring, it can be replaced into the scrotum by a little patience on the part of the mother.

Dr. W. C. Dugan: I believe that Dr. Rodman did exactly right in removing the testicle, as, when retained in the canal they are very prone to undergo malignant degeneration. The question I want to bring up is this, and, as I have stated before,—when these cases come under our observation early in children, if everything else has been tried, and the testicle remains in the canal, and we cannot get it down, and the mother and father are very anxious to save the testicle,—inasmuch as we know that when these testicles are in the cavity of the pelvis, they are normal and serviceable, and a testicle in the canal is subjected to pressure and liable to undergo malignant or inflammatory degeneration, that these testicles should be put back into the pelvis. I think this will be the operation in the future.

AN INSURANCE QUESTION.

Dr. W. L. Rodman: I have seen in the last few days the most remarkable case that I have ever seen in my life—the most deplorable ending to it. Last Thursday I saw a gentleman for an accident company, about fifty-five years of age, laborer in one of the breweries of this city, who, by some accident, had sustained a simple fracture

of the distal phalanx of the great toe near the joint. I saw him for the first time Thursday afternoon, after considerable swelling had taken place. I ordered hot applications, saw him again Friday and he seemed to be getting along all right. I saw him again on Saturday afternoon, five o'clock, and noticed he was a little nervous. His wife said that he had some fever in the forenoon, but did not seem to have any when I saw him at five o'clock in the evening. I did not use the thermometer, however; he said he was feeling very comfortable, and remarked that the hot water had relieved the pain. I told him he was doing so well that I would not call again until Monday. I learned to-day (Monday) that he was dead. I at once went to the brewery to learn the particulars and found that on Sunday morning about two o'clock he had jumped out of the second story window; did not hurt himself much in jumping; wandered around town, went to the brewery and remained there two or three hours; bought two bottles of whiskey (pint bottles) and wandered out to the country and was seen six or seven miles from town yesterday at noon. He was very thirsty and went to a farmer's house, and asked for a drink of water, then tried to climb up the side of the stable, saying that he wanted to get into his room. He wandered about all yesterday and was found dead about four o'clock this morning with two empty pint bottles in his pocket, having evidently contained whiskey. This man had been working at the brewery and had probably been in the habit of drinking a great deal of beer; when I saw him on Saturday afternoon I did not tell him to drink more or to drink less. I thought as he was a little nervous possibly he was not getting quite as much beer as he was accustomed to. The question is, what ought the accident company to do in a case of this kind. I am very frank to say that the man may have had delirium, even as a result of a slight injury like that. It is questionable as to how much was due to whiskey, and how much was due to fever, the result of this simple fracture of the distal phalanx of the great toe.

I remember reporting to this Society four or five years ago a case of delirium after fracture of the leg. I held at the time that the delirium was due to the fracture.

DISCUSSION.

Dr. E. R. Palmer: My experience with these men who work about breweries and about beer saloons, and who are constant beer drinkers, is that they usually wind up the day with whiskey or brandy; that beginning the next morning they drink whiskey or brandy, which, in both or either instance, is usually a very inferior article, and begin their beer again about ten o'clock in the day. I think the case reported is clearly one of surgical delirium in the drinking man.

Dr. W. C. Dugan: The question is whether the accident company should pay the amount of insurance.—I think they should. Why? Because, undoubtedly, the fact was known that the man in question was a drinking man at the time the insurance was taken out. The company assumed the risk, and, I think, should pay for it. It may be true that the man developed delirium tremens, and he was practically predisposed to it. On the other hand, his death might have been the result of uræmic coma.

Dr. H. H. Grant: I have seen a great deal of delirium tremens, and it has been my observation that it nearly always occurs, for some reason, after fracture or other minor injury. In the case reported by Dr. Rodman, I do not think the man would have sustained the injury if he had been carefully watched and properly nursed. I believe it is fair to decide that the accident was not the cause of this man's death, but it was the predisposing cause. I do not think the accident company is responsible for the reason that the man was under the care of his family and should not have been allowed to jump out of the window, subjecting himself to that risk. I think the position taken by Dr. Dugan is hardly the proper one for us to hold.

Dr. W. L. Rodman: I failed to state that this man lived up stairs with his wife, who is an invalid, and, therefore, not able to restrain him. I shall certainly advise the company to pay the insurance. Had he not received the injury, he would not have had delirium tremens.

Many cases of death are caused from vasomotor paralysis of the heart, superinduced by the administration of alcohol in the practice of physicians.—Quirmby.

THE CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting of December 13th, 1892.

DOUBLE EXCISION OF THE KNEE.

DR. A. M. VANCE: I simply present this patient to show the result of double incision of the knee for infantile paralysis. The boy is about nine years old, very small for his age; his body is fairly well-developed but the legs are very small. I first operated upon the left leg, then after a lapse of about five months excised the right knee. You will notice I have put one leg in slight flexion, the other in hyper-extension, by this means hoping that he may be better able to balance himself in walking. I used no suture whatever in uniting the bones, the plaster dressing serving to keep them in apposition; I first removed the patella, then about a half inch of the tibia and femur. There has not been the slightest sign of inflammatory reaction or suppuration from either operation, proving the power of asepsis in these cases. I have done this operation five times on the knee, and twice on the ankle; the last patient operated upon died about ten days after the operation with some trouble of the heart.

DISCUSSION.

DR. I. N. BLOOM: In case the operation had not been performed and the paralytic condition allowed to exist there would have been complete atrophy of the muscles. I would like to ask Dr. Vance if he expects muscular development now.

DR. A. M. VANCE: All the calf muscles that move the foot and are not paralyzed, will develop by use.

Dr. W. O. ROBERTS: There seems to be a good, bony union. Have you ever noticed in any of these cases, after you have apparently secured good, bony union, it afterwards limbers up?

Dr. A. M. VANCE: No, I have not; the bony union has always been permanent.

DR. W. O. ROBERTS: One important point in an operation of this character is to get, if possible, bony union, and in order to do that it seems to me you are bound to take off the cartilage of both bones. If you do not you get what is called a "flail" joint. Another point you have to be exceedingly careful about in removing a piece of bone is, not to take off too much; if you do the bone ceases to grow. This is a very important point in cases of resection in children.

CASES EXHIBITED.

DR. T. P. SATTERWHITE: Dr. Dugan, I believe, performed a laparotomy upon this patient about a year ago; the stitches inserted at the time seem apparently to have cut through, and there is a kaloid condition running across the abdomen from each stitch as large as a small lead-pencil. She is a Polish girl about eighteen years of age. The operation referred to, as I understand, was an exploratory one, owing to some ovarian trouble which was supposed to exist. However, everything was found to be in an apparently healthy condition, consequently nothing was removed.

The point that I wish to call particular attention to is, that she now claims to have an evacuation of the bowels only once in three or four weeks. She speaks English so imperfectly that it has been exceedingly difficult for me to obtain a full history of the case. She tells me that she suffers intensely, probably from the accumulation of fecal matter, and that a colotomy has been proposed for her relief. That is a point upon which I desire to obtain the judgment of the Society—as to the propriety of further operation. She came to me for advice as to whether she should submit to an operation. She says that one-half of her body, (left side) is perfectly devoid of sensation; a needle can be thrust into the body on that side without pain; there is perfect sensation of the opposite side. There is no loss of motion of any portion of the body, but simply loss of sensation on one side, which has existed for about eleven months. She has been troubled with constipation for about a year.

CASE II. Many of you have seen this patient as he has been in the city hospital a greater part of the time for the last year or so. I simply had him come here to show the development of the superficial veins on the upper part of the trunk. These veins commenced enlarging about a year ago and you will observe now they are nearly as large as your finger. A peculiar feature is that the blood flows downward

in these veins, as can easily be proven by compressing them at either extremity.

DISCUSSION.

Dr. W. H. Wathen: If I understand correctly, one of the especial reasons for reporting the first case, was to get the sense of the Society as to whether colotomy is indicated. This woman consulted me some six weeks ago upon two or three occasions, but I found that she was not a patient that would interest me especially, and declined to see her again. I can see no indication for a surgical operation of any kind upon her bowels, or upon her uterus or its adnexa. Colotomy could do no possible good, but might do a great deal of harm, because it would bring about a very disageeable condition by keeping the patient constantly soiled with fecal matter. I can not understand why colotomy should have been suggested, because there is no apparent obstruction in any part of the canal, and we have no positive assurance that this woman has constipation at all. In fact, I am inclined to the opinion that she is having evacuations with comparative regularity. I do not mean to claim that she is purposely deceiving the profession, for she may be absolutely honest in what she says; she is probably insane upon the subject. Were she having as few evacuations as she claims, there would be conditions that do not exist.

Dr. T. P. Satterwhite: In regard to what Dr. Wathen has said: "That there would be some constitutional disturbance if a patient did not have an evacuation oftener than stated by this patient," let me state: Several years ago I had an Irish servant girl with me about thirteen years, and she never had an action of the bowels for three and four weeks at a time and during this period she was in excellent health. Never was sick in the thirteen years, and she reported to me at the time that there was a woman next door in exactly the same condition.

Dr. I. N. Bloom: You are all doubtless familiar with the report in physiology of a man who went eight months and sixteen days without having an action of the bowels, and was in perfect health all the time, and when he did have an action there was a large amount of fecal matter, over fifty pounds, I think. Cases of this kind are not so very uncommon. An examination of the abdomen is bound to disclose an abnormal condition, while the sensations of the patient may be those perfectly consistent with good health.

Dr. A. M. Vance: I have seen a great many cases of varicose veins on the trunk, and do not think the condition very uncommon. I expect I have seen at least twenty-five cases, some of which are more marked than the one shown by Dr. Satterwhite.

GANGRENE FOLLOWING FRACTURE OF ARM.

Dr. W. O. Roberts: About two weeks ago I was called to a neighboring town to see a gentleman who had fallen a distance of some twenty feet, sustaining a complicated fracture of the bones of the forearm. The arm was put up in plaster dressing and kept there several days. At the end of the week his physician discovered evidence of gangrene. When I saw the patient, seven days after receipt of the injury, gangrene was quite marked and extended to within two inches of the elbow joint. The parts above were very much swollen, and there was considerable contusion and ecchymosis of the arm on the inside, as high as the axillary space. The patient's temperature was 104° F., pulse 130. The temperature the day before, the doctor told me, was only 101° F.; on the morning of the day I saw him it was 102° F. I saw him about four o'clock in the afternoon and advised immediate amputation, and did the operation at the junction of the middle third of the humerus. I had a letter from the doctor, a week after the operation was performed, saying that at nine o'clock at night of the day of the operation the patient's temperature had fallen to 100° F. and since that time it had not gone above 99°, and that there was union nearly throughout the whole line of the incision.

Excision of the tympanum and ossicles gives beneficial results only in about forty-six per cent. as to the tinnitus, but no noticeable improvement in the hearing.

Doctors, lawyers and divines in our American civilization are prone to use tobacco, not simply for its sedative effect, but for companionship, and so to use it to excess.

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SATURDAY, JANUARY 14TH, 1893.

EDITORIAL.

A DEPARTMENT OF PUBLIC HEALTH.

Why not establish a National Department of Public Health, with its chief a member of the Cabinet? The present seems to offer a most favorable opportunity. The subject has been frequently discussed of late years, but apart from the establishment of a national quarantine supervision, no suggestion on this line has been made since the subsidence of the late cholera excitement.

None but a cavilling patriot or a ward statesman would deny the usefulness of the Department of Agriculture. It has rendered good service within its sphere. At any rate, it has succeeded in restoring the position of the American Pig abroad. It costs some million dollars to do this, but it secures large profits for pork packers and enables them to maintain without cost their representative in the foreign market.

While thus insuring his alien friends against infection from "pork measles," the American tax payer maintains his personal liberty to enjoy all the privileges and delights to be secured from Trichinosis. Indeed he could hardly do otherwise for it would require Federal watchfulness and authority to secure him immunity, and this could not be had without infringing on State Rights. Any national laws to regulate adulterated or impure food products must meet with the same objection.

If the Federal Government is able to spend money liberally to investigate the ills that animals are heir to, and to enforce measures to prevent and cure such ills; if it can indulge in costly efforts to make sterile lands fertile; if it can explode thousands of dollars in making stage-thunder, hoping to seduce cloudless skies into surrendering rain; if it can control and regulate interstate commerce—it would not seem an undue centralization of power to charge the National Government with the care of the health and happiness of the citizens of states which are inter-dependent in this matter perhaps more than any other.

Of course if public health were raised to a plane that required it to support the tremendous dignity of a government "Department" and

"Show the force of temporal power,
"The attribute to awe and majesty,
"Wherein doth sit the dread and fear of Kings"

it is altogether probable that its beneficial action would be clogged by that network of red tape which seems necessary to prove the existence of governmental undertakings. But with all its pretentious formality it would be infinitely better than the system now obtaining, where the health officer is the creature of local politicians and the office is used to repay political obligations without reference to its importance or to the qualifications of the incumbent.

The health officer in any large seaport may, from a position of comparitive insignificance, suddenly be charged with responsibilities that would strain to the utmost the resources and capabilities of the best trained and most experienced scientific specialists of the world. It is simply impossible for any ring-trained politician to rise equal to such an emergency. Only a thorough scientist supported by the power of the Federal government can successfully contend with the Devil of Moneyed Interests on the one hand and, on the other, the Deep Sea of the Welfare of sixty-five millions of people.

Two measures have been presented to Congress as steps toward securing national quarantine control; at best but wretched caricatures of what is needed. One proposes to attach quarantine to an existing branch of the service, which might be able to care for it if it had nothing else to do. The other proposes absolutely nothing.

The first measure, now pending in the Senate, is apparently objectionable to certain disinterested patriots. For it threatens injury to the steamship companies concerned, in that it does not consider their dividends superior to the welfare of United States citizens. Again it appears to be totally oblivious to the time honored rights of "effete monarchies" to unload their paupers and criminals on American Institutions. Finally it unwinds the swathing bandages of that mouldy mummy States Rights.

As the bill is constructed on the "nickle-in-the-slot" principle the insertion of sufficient *plaques* might bring out enough amendments to remove these and all other objections.

It may be noted that States Rights were not pressed with any degree of persistence when the Marine Hospital Service was detailed to stamp out yellow fever in Florida, and saved the nation from a "visitation of wrath" that the combined "righteousness" of local health authorities could not have averted for a moment.

Quarantine is not the only function of such a department. It is not the chiefest even. The immense subject of vital statistics in its myriad ramifications is of untold value to the nation, practically as well as scientifically.

If infectious or contagious disease among animals is of sufficient importance to require government authority for investigation, prevention and cure, it would not seem unreasonable nor yet undesirable for the government to undertake the watch-care of analogous conditions in man. If it could be accomplished in no other way, it might possibly be smuggled into the department of Agriculture under the plea that man is only an "articulate speaking" animal.

GYNECOLOGY AMONG THE INSANE.

The secular papers with an inspiration commendable for energy rather than discretion, announce that the State Board of Charities has prohibited, as "illegal, brutal, inhuman and not excusable on any reasonable ground," the practice of gynecological surgery upon insane women at the Norristown Hospital. The breeze is

caused by the alleged action of Dr. Bennett in allowing operative procedures to be undertaken on a series of cases in hopes of relieving or curing the mental conditions by removing the probable physical causes. The State Board is fortified by an opinion from its legal member, which opinion shows better acquaintance with law than with medicine. We venture to say that Dr. Bennett has permitted no operation where there were not gross indications of actual disease such as would compel urgent measures in the sane.

However it may be of some benefit to the profession to have this moot question definitely settled by the State Board of Charities and its legal member thus early in the investigation. We hope these authorities will not rest idly content until they have definitely settled, at least to their own satisfaction, the "illegality, the brutality, the inhumanity and the inexcusability" of cerebral surgery in cases of mental disturbances caused by old depressed fractures, tumors, abscesses and the like in the brain.

Perhaps it is true humanity to keep the irresponsible wards of the state intact in their insanity, but it is doubtful if even the *savants* of the State Board of Charities would hesitate to invoke any means of relief, even such brutal and inhuman ones, were the unfortunate victims closely reated to themselves.

THE BOARD OF HEALTH.

During the last four weeks the number of cases of diphtheria reported to the Board of Health has ranged from 144 to 154, and the deaths from 36 to 62 weekly. The Board has guarded more or less efficiently those houses in which the disease has had its victims. This has been a necessary precaution which should not have been suspended for a single hour, but it appears that on the 28th of December the Health Officer withdrew from the scenes of the disease all watchmen employed by the Board, for the stated reason that the appropriations for 1892 had been exhausted. On the following day, however, it was discovered that such was not the case, and, consequently, some of the watchmen were reinstated and the quarantine about the infected houses again set up.

That the quarantine was intermitted for a day or an hour was a mistake. The Health Officer, if the Board's treasury were really empty, should have given the watchmen personal assurance of their being ultimately paid, or he should have consulted the Mayor, who could have got in an hour subscriptions from citizens sufficient to pay for guarding every dangerous point. The Health Officer, in such an emergency, could have got the little money needed for a purpose so nearly affecting the health and lives of the community at the LEDGER office, or from any one of a hundred other offices near at hand, where it would have been willingly advanced or presented him. There was no valid excuse whatever for suspending the quarantine of the diphtheria cases for a day or an hour.

The large number of deaths which have occurred from this disease during the year past, the larger number of cases and the continued prevalence of the malady suggest that the Board of Health is not conspicuously competent to deal with a contagious disease which has got so strong a foothold and the mortality from which is so great.

The Board of Health proposed, and in its treatment of Philadelphia's commerce, used truly remarkable means to prevent cholera entering the city. Its quarantine policy and methods were, and still are, as antiquated, crude and clumsy as they well could be. They appeared to be intended rather for the crippling of commerce than for protecting the public health.

Take as an example of the practices of the Board its treatment of certain passengers on the Indiana the other day. On the last voyage of that ship three children developed scarlatina; they were at once isolated from the passengers in another part of the vessel, and given the best medical attention. No other cases had oc-

curred when the Indiana arrived at her dock on December 31st, nine days after the third and last case had developed.

But under orders from the Port Physician, by instructions of the Board of Health, the three children referred to, and all other members of the families connected with them, together with all the other children under twelve years of age aboard the ship, and all the other members of their families, were placed in ambulances, provided by the Board of Health, and driven through the cold streets to the distant Municipal Hospital, commonly known as the City's Pest House, and largely occupied at the time by diphtheria patients. All those persons were kept in this place of contagious diseases until January 4, when they were returned to the vessel. Prior to their removal to the hospital the steamship agents recommended to the health authorities that all passengers who were regarded as suspects should remain aboard the Indiana, where they could be isolated and receive the best treatment and attention, at the company's sole charge and expense, instead of being hauled through the streets to the pest house, but the offer was refused.

Inquiry made at the German, Jefferson, Philadelphia, Hahnemann, Jewish, University, Medico-Chirurgical, Pennsylvania, Presbyterian, Episcopal and St. Agnes's Hospitals shows that neither of these institutions receives diphtheria patients, and the Board of Health has ordered that all such cases shall be sent to the Municipal Hospital. In view of the fact that that institution has not the resources, facilities or appliances for treating the diphtheria in the most effective manner, and as the Port Physician, in a letter dated January 1st, 1893, stated that the city is "engaged in a desperate struggle with an epidemic of diphtheria," would it not be reasonable that some provision should be instantly made for treating aggravated cases of the disease, and also for providing a headquarters where poor patients, at least, could be promptly treated by the most skilled physicians? Why should there not be promptly established a diphtheria hospital? It will be noticed that, according to indisputable evidence, cases are commonly left to be treated in the place of their origin, be it a mansion or a small, crowded household of the very poor, and, even with such a condition of affairs, all possible physical restraint as to the intermingling of the inmates of the various houses in which diphtheria existed was removed for a time, as recently as Thursday, December 28th, 1892, through the removal of watchmen from quarantined houses.

Common sense would seem to indicate that, as Philadelphia has suffered during the last few months from what is designated by a prominent health authority as "a scourge of diphtheria," some steps should be taken to stamp out the disease, which is amongst us in visible form, rather than to concentrate the efforts of the Board of Health upon crude schemes to repel a no more dangerous scourge, which, it is only conjectured, may appear in our vicinity within the next four months. Not a single suspected case, even, of cholera, so far as is known, was brought to this port by any ship last summer.

A diphtheria hospital could be established at once, and, if placed under expert management, the funds to carry it on would not be lacking.

Meanwhile, the Board of Health should do something to show that it is entitled to public confidence. Its quarantine methods, as applied to ships or houses, are not of a sort to give assurances of its intelligent appreciation of what is best to be done, or how to do it.—(Ed. *Public Ledger*, *Jan. 10*, *1892.*)

Effect of Intra-nasal Obstructions on the Singing Voice.

Dr. A. B. Thrasher (*Cincinnati Lancet-Clinic*) says:

Intra-nasal obstructions are a common and serious cause of disorders of the singing voice.

Generally the obstruction is accompanied by an affection of the soft palate, and less frequently by pharyngeal and laryngeal disease.

When there is simple intra-nasal obstruction not complicated with palatal, pharyngeal, or laryngeal lesions, the timbre only of the voice is affected.

When the movements of the soft palate are interfered with, then the upper register and the soft medium register are affected, in addition to an injury to the quality of the voice.—*Am. Lan.*

TRANSLATIONS.

MARIE B. WERNER, M. D.

NEW GROWTH OF THE UMBILICUS*

This interesting monograph contains many important communications, which have been derived largely from the surgical clinic at Halle, while a number have come under the author's personal observation.

The collection of 185 cases have been carefully studied and classified. This is the first of a series of studies on carcinoma which was inaugurated by the late R. Von Volkman, and begun by his assistant shortly before his death. Pernice classifies the case under four heads:

I. *The Inflammatory Processes of the Umbilicus.*—Under this head he recognizes five forms, namely: 1. A case of navel-granular. 2. A case of navel-gumma, (which had softened and thus had the appearance of a degenerating carcinoma.) 3. The navel concretions. 4. A case of a horny excrescence of the umbilicus. 5. Papillary fibroma, (these are placed under this head from the fact that they originate by a slow form of inflammation, the tumor developing slowly at its base.) These cases studied in detail will prove of interest.

The second chaper takes up:

II. *The Growths Originating in the Connective Tissue.*—Under this head Pernice reports: 1. Two cases of fibroma and fibro-lipoma. 2. Two cases of angioma. 3. Nine cases of myxoma. 4. Fourteen cases of sarcoma and fibro-sarcoma. Eight of these came under the author's own observation; among these he met with two cases of melanotic sarcoma.

The author has devoted more time and study to the third class making it especially interesting regarding the origin of the various forms of malignant growths. His classification is as follows:

III. *The Growths from the Umbilicus Originating in an Epithelial Basis, Particularly Carcinoma.*—Pernice separates the primary from the secondary forms and since the value of this essay concentrates itself in this chapter, it becomes desirable to enter into a little more detail regarding its theories. 1. Primary Carcinomas, under which he reports 27 cases, among which the following differentiations are observed: Cancroid, Papilloma degenerating into Carcinoma, Scirrhus, Tubercular Epithelioma, Colloid Carcinoma, Encephaloid Carcinoma. In the greater portion of the first three mentioned their origin can be traced to the superficial layer of the epithelium. The second growth is characterized by epithelium similar to that found in the intestines. The explanation for the frequency of Cancroid may be found in the chronic irritative condition met within the collection and decomposition of dirt and epithelial masses, hair, and sebaceous matter. Their growth is slow, frequently degenerating from papilloma, and partake of an abscess or papillomatous appearance. The prognosis is relatively favorable. It is advisable to operate early and never to remove a suspicious malignant growth without opening the peritoneum for careful inspection and removal of suspicious infiltrates. If the inguinal glands are enlarged they should be extirpated. Scirrhus, which should be treated from the same standpoint, derives in all probability its origin from the epithelium of the skin, perhaps the most deeply seated part of the umbilical cicatrix. It is characterized by its relatively rapid growth. The prognosis is relatively more unfavorable.

To the second group, whose origin is traced to the more deeply seated epithelium, belong the cases of Colloid and Encephaloid Carcinoma. Their epithelium resembles that of the intestine, and they are, perhaps, closely related to the ductus omphalomesaraicus. (A swelling of the umbilicus may often be regarded as primary when in reality it is simply a continuation from a deeper seated growth; for example, an extension from a cancer of the stomach). Rapid growth into the deeper structure is characteristic of this variety, extending not only through the umbilicus but also into the peritoneum and abdominal organs. On several occasions small carcinomatous growths were observed through the peritoneum and upon the serosa of the liver. Frequently infiltrations have been noticed extending from the umbilicus to the liver, to the bladder,

*Translated from the Central. f. Chirurg, No. 41. 1892, for MEDICAL and SURGICAL REPORTER.

in the suspensory ligament of the liver and the median vesical ligament, carried, no doubt, by the lymph channels. The inguinal glands were frequently found infected, but infection was rarely noticed in the retroperitoneal glands and never in the axillary glands. The prognosis is unfavorable.

2. Secondary Umbilical Cancer.–Of this variety he reports twenty-nine cases; twenty among women, nine among men. The primary lesion was usually somewhere in the abdominal organs—stomach, uterus or intestines. The ages ranged from 33 to 73 years; the greater number of cases were found between the ages of 50 and 60. All cases ended fatally in spite of numerous operative procedures. The growths were a sequence to the continued progression of the disease in twenty-four, and in five it appeared as a metastatic formation.

In the first series of cases reported under this head, ten cases were described, in which there was direct adhesion of the cancerous mass to the umbilicus; thirteen where communications could be traced from the ligamentum suspensor hepaticus, and lastly, a case in which it followed the incarceration of a carcinomatous nodule of the omentum in an umbilical hernia, the primary growth having started in the uterus. The first ten cases were for the most part secondary manifestations of a primary cancer in the stomach, or an omental metastasis, cancer of the gallbladder or intestines, which had become adherent to the umbilicus. Among the thirteen cases the primary affection in seven was of gastric origin, one of the intestine, two of the uterus, three of the peritoneum generally.

The metastatic formation of cancer in the umbilicus is rare if not in direct communication with the lymph channels, it seemingly being necessary to have a direct medium of interchange. The prognosis is unfavorable, operative interference having in all cases been hopeless from the extensive infiltration.

In a third group under the third class he places:

3. Atheroma and Dermoids of the Umbilicus.—He reports twelve cases. The treatment and its result is precisely the same as in other parts of the body.

Under the fourth class the author places:

IV. *Adenoma and Enteroteratoma of the Umbilicus.*—They apparently simulate the granuloma and are connected with the ductus omphalomesaraicus. Thirty-eight cases gathered from the literature and one case under personal observation are reported. Histologically, they are composed of two layers, a peripheral glandular layer and a smooth, muscular layer, and occasionally a thin, central connective tissue layer could be observed. The author does not approve of the names given this form of enlargement, since he is of the opinion that, generically speaking, adenoma does not express its mode of origin—not being a new growth—but a prolapsed diverticular portion of the tissues, and for that reason enterateratium is equally unsuited to describe it. The author, therefore, proposes the name of diverticular prolapse of the umbilicus, which explains the nature of the swelling and its peculiar histological construction.

A Case of Poisoning of Methylblue.

An engineer was suffering from a typical attack of malarial fever and was treated with arsenic and quinine without success; received some benefit from the use of strychnia. After consulting another physician later he ordered methylblue, three or four times daily 0, 2 grm. On the second day there was difficulty of urination and vomiting; notwithstanding this he continued taking the medicine. In the following few days these symptoms increased; urination became more painful accompained by some bleeding. After six days the treatment was stopped and the symptoms of poisoning disappeared in a few days.—(*Wein. Aerztl. Centr.-Anz.*)

The Treatment of Tetanus.

Verneuil believes that the practice of Berger of amputating the affected member becomes useful in a relatively small number of cases since the results are not certain and the most favorable time for operation is not always known; and lastly, that the excitement preceding the amputation, as also the administration of anæsthetics, may produce a fatal attack of tetanus. Verneuil in order to support this statement cites six cases in which amputation resulted unfavorably. Among these, three in which the operation was performed be-

fore a distinct attack of tetanus had set in. Chauvel also regards amputation as a questionable treatment for tetanus.

Vaillard could never cure artificially induced tetanus in an animal by amputation. Of greater importance is the rigorous antisepsis of the wound, since the investigations of Vincent and Vaillard have proven that the microbe is only active when in contact with other septic microbe (Staphylococcus and Streptococcus.)

Trasbot called attention to the fact that the prognosis of tetanus in the horse, is more favorable if its duration extends over a period of two weeks. It has also been noticed that chronic tetanus in the human being is more benign than the acute. For that reason greater importance must be placed upon therapeutic treatment.

Labanc declares that the results which Nocard has attained with antitoxin in chronic tetanus would have been healed as well without it. He considers the injections injurious, for the reason that antitoxin produces, like all other toxins, an exacerbation of the disease with fever which may induce a return of the tetanus symptoms.—(*Bull. Méd.*)

ABSTRACTS.

CORRECT GYMNASTIC POSITIONS.

Prof. Hans Ballin, (*The Annals of Hygiene*, December 1892,) says:

It is one of the main requirements in gymnastic work that a position should be correct. A carelessly executed exercise is of little or no value and leads often to the contrary of what is aimed at. He who practices gymnastics unsystematically, or he who teaches with a point in view to attain certain exercises and feats independently of position and posture of the whole body, gives evidence that he has not conceived the right spirit of physical culture.

We meet, however, with the fact that many gymnasts who exercise at random in the gymnasium or at home, or indulge in some manly sport, pay little or no attention to the execution of the movement as long as they have carried their point. They will jump and are proud when they can clear the rope at sixty inches, and they care very little that they did so in the most ungraceful manner. They will perform a giant swing on the horizontal bar, having their feet wide apart, keeping their body flabby and without any vigor and attitude, which does but little to develop muscular control. Now there may be some who claim that it matters very little how a man jumps as long as he exercises his body, and if he ever succeeds in jumping to an enormous height, he will be nevertheless the champion jumper. A man who will dare and accomplish the giant swing, will undoubtedly be considered by his comrades a daring fellow, who outdoes them completely.

This is all true, they will be the boys who will find their admirers. But physical exercise aims at more than to become a champion of feats; it must educate the body so it will be the servant of its supreme master—the mind; and, futhermore, must develope the human form symmetrically. This can only be attained by paying strict attention to the position and carriage of the whole body while performing physical work. An exercise which requires principally the action of the muscles of the legs is of little or no account when the trunk and arms are in an uninteresting and careless posture.

Experience teaches us that it takes a long and tedious course of practice for a person to become master of all groups of muscles in order that he will he enabled to move them at instant command. Complex motions make it still more difficult for co-ordinate action.

An untrained gymnast will lay all stress on the main features of the exercise, and having accomplished this is unconscious of the appearance and correct execution. A boy who tries for the first time to climb a ladder, going hand-over-hand on the underside of it, will sprawl with his legs like a frog out of water.

It can often be proven that these champions of some athletic or gymnastic sport act surprisingly and clumsily when they try for the first time to execute some simple calisthenic movement. An exercise correctly taken must at all times be an exercise of the whole body; there is somewhere an obstruction, which must be

overcome by practice. These hindrances to the performance of an exercise indicate the probability that the teacher has advanced too rapidly or unmethodically. The method must aim to conduct the scholars through the consciousness of bodily evolution by practice to the unconscious action. The more a person is lacking control over his muscular system, the more is he liable to bring into action, unnecessarily, those muscles which it is easiest for him to govern. If he, therefore, had to exercise with his legs, and has better command over the muscles of the arm, they will do the unnecessary movements, which make a person's actions awkward in appearance. This awkwardness is most effectually fought by laying stress on the carriage and posture of the whole body, thus recognizing the truism that the whole muscular system is an unbroken tissue, one muscle is closely allied to the neighboring one, and all are supplied from a common nerve-centre.

CLUB FOOT.

Dr. Rœckel, in the *Australian Medical Journal* for November, 1892, in relating some surgical experiences at the National Orthopædic Hospital, London, says that the traditional treatment for club foot is divided into so many stages, generally only two. Say a baby is brought into the hospital with talipes equino varus of long standing origin. Here the stages in the treatment will be two—the first, the removal of the varus, the second, that of the equinus. Say a case is complicated by what is called plantar varus, that is, contraction of certain portions of the plantar fascia, and of the long calcaneo-cuboid ligament. Here, the first stage will be the removal of this deformity; the second, the removal of the varus due to the shortening of the tibialis anticus or posticus, or both; the third, that of the equinus. This dividing the treatment into stages simplifies matters wonderfully, and ensure good results in the end. It rests too on a scientific basis, as well as a practical one.

As operative measures in true orthopædic surgery consist only in the subcutaneous division of tendons, fasciæ and ligaments, they may be said to play but a small part in the treatment, though often, of course, their *rôle* is important enough. The main treatment, the backbone of the curative procedure, is unquestionably the working or manipulating of the affected part after operation, or even without it.

Well, we will suppose now that a mother brings her child, say but a few months old, with a congenital talipes equino varus. The first point is to ascertain whether the varus will require operation, that is, division of the tibialis for its removal. This is very easily done, nothing more easy in the work. You simply try with the hands whether you can force the baby's foot straight, that is, into a position free from varus. If you can, no operation will be required; if you cannot, you will have to divide the tibialis, one or both. For if you are able at the first interview to overcome the varus with the strength of your hands, it is an absolute certainty that working will remove the deformity. This is a grand axiom in orthopædic surgery, a very grand axiom.

Whatever improvement you can effect by manipulation for a few seconds, will become permanent by repeated and prolonged manipulation. We will suppose now that in the baby's case just mentioned, you find yourself to overcome the varus by your hands, the baby will then have to attend daily at the hospital to have its varus worked out by the nurse for a week or two, the mother of course bringing the child and receiving her lesson as to the manipulation which she will have to continue at home so soon as she gives the nurse proof of proficiency. You will see how excellently this plan works. It is naturally a great bother for the mother to bring her baby daily to the hospital, especially if she lives far off. She will therefore exert herself to the utmost to learn her lesson in the shortest possible time. The nurse on the other hand, knows that at the first visit to the surgeon after the mother is officiating as worker, she will be put through her paces, that is, made to work her baby's foot in his presence and before his eyes. Nurses, as you are all aware, do not like snubs, and something more than a snub to the nurse would

follow a mother's inefficiency in the working department. Is it difficult to work out the varus from a baby's foot? No, certainly not. You grasp your fixed point, or rather the point you mean to fix (the heel) firmly with your left hand; with your right you lay hold of the lower end of the foot about opposite the heads of the metatarsal bones, and then give a series of jerks outwards, that is, in the opposite direction to which the varus tends. Of course, an experienced worker will make much more headway than a beginner as to result, still a baby's foot is so small, the resistance to be overcome is so comparatively slight, that mothers, unless indeed they should happen to be the very greatest of geese, can manage to work out this deformity in from a fortnight to five weeks.

THE STORY OF THE INSANE.

Dr. Wells, in an inaugural address delivered before the Minnesota Academy of Medicine, Nov. 2, 1892, says in part: "In the light of what has been and now is, no state will ever permit its insane poor to be remanded to the mercies of the poor house. A generous and enlightened policy alone becomes the dignity and honor of every state in its provision for the insane. Their numbers are rapidly accumulating, and in no other way can their pressing needs and those of common humanity be satisfied. They are the most helpless and defenseless of all God's creatures, and the most dependent upon those whose reason has been spared and without which life is nothing worth. The insane are not only the wards of the State but above all of the medical profession. Through their long wanderings has the medical profession been to them a cloud by day and a pillar of fire by night. Before the influence of the new pathology prejudice and superstitions have faded away. Ever their defenders they have stood inflexible between them and the injustice of courts and juries and saved them from the hangman's knot.

One hundred years ago five hundred insane were chained in a single asylum under the lash of cruel keepers and visited twice a week by an apothecary. Now is our triumph complete as we behold the insane throughout the world in perfect trust, committed to our care. The mission of the medical profession has ever been and is to be the benefaction of mankind, and we may be justly proud of the part we have borne in this great and enduring work of reform in the affairs of the insane, for there exists no grander monument to the world's enlightenment and progress than the redemption of the insane from their centuries of bondage."

EXTRA-UTERINE PREGNANCY.

At a meeting of the Gynecological Congress, at Brussels, September 16, 1892, (*The Provincial Medical Journal*, October, 1892), A. Martin, of Berlin, read a paper on this subject. His conclusions were: 1. The etiology of extra-uterine pregnancy remained, to the present day, veiled in the deepest obscurity. Certain hypotheses already advanced only explained isolated cases in a manner which did not defy criticism. The question could not be settled until the physiology of impregnation was better understood. 2. Most frequently the ovum was implanted in the tube. Ovarian attachment was less rare than recently supposed. Abdominal insertion of the ovum remained doubtful. 3. The diagnosis of ectopic gestation was a diagnosis of probability, except in cases where we could observe the development of the fœtal sac outside the uterine cavity, or the development of an intra-uterine decidua without any distinguishable chorion, or when we discovered the fœtus itself. 4. The evolutions of extra-uterine pregnancy rarely ended in retrograde metamorphosis (lithopædion mummification) without any intervening accident. As a rule, the death of the ovum occurred through hemorrhage into the fœtal sac, or into the ovum itself. The blood escaped into the abdominal cavity, either out of the ostium of the tube (tubal abortion, properly so called), or by rupture of the

tube, in its continuity, into the peritoneal cavity or broad ligament. The hemorrhage only ceased in exceptional cases. In most instances death occurred either from anæmia or from a peritonitis, the precise nature of which remained obscure. Ectopic gestation should always be reckoned as a dangerous neoplasm, and treated accordingly. Cases of development to term were so rare that to respect the interests of the child was to neglect totally those of the mother. 6. Consequently, it would appear that operative interference, undertaken as soon as possible, was the right course in all forms of ectopic gestation. The fœtal sac should be extirpated if possible. Treatment by hypdermatic injections of morphine cured very slowly. Treatment by electricity could not yet be rated at its true value, as hitherto recorded observations on this method were not above criticism.

A CLINICAL STUDY OF GLANDERS IN THE HORSE.

Discussing this disease, Dr. W. H. Daly says (*Med. Record*):—In the teachings of the books, the names glanders and farcy are synonymous, but with the usual loose use of terms by the more ignorant and would be veterinarians these names are applied to two different phases of glanders, with the implication that they are two different diseases. That form of glanders where the nasal discharge is most prominent is spoken of commonly as glanders; the term farcy is used to designate the other form, where the disease displays lumps in the line of the lymphatics, along the belly and insides of the thighs, along the neck and elsewhere, varying from the size of a hickory-nut to that of a small apple, together with œdema of the legs and stiffness of the joints; later, the nodular lymphatics, or so-called farcy buds, break down and ulcerate; this form is spoken of as farcy, but it is all the same glanders, as syphilis that attacks the glands is none the less syphilis.

The nasal discharge in glanders is not necessarily offensive, and in most of the cases I have seen not at all so. When the animals are kept as clean as possible, moreover, the nasal discharge is not necessarily purulent, but may be of a starchy character, and may be chiefly from one naris.

The disease may lurk and be masked in the system of a horse for many months, and the only significant or apparent symptom may be a slight and inodorous discharge from one naris on driving the animal.

The horse may be far advanced in the disease, and with the discharge considerable, when the amount he may blow from his nose in driving is taken into account, e t so far as his apparent activity, spirits, and appetite are concerned nothing unusual may seem wrong, other than the evidence of a slight cold, or epizootic, with concomitant or following loss of flesh.

The disease has been known to have apparently disappeared in a given animal, the usual discharge to disappear, flesh return, nodular lymphatics or farcy buds to disappear by absorption, and later, from overwork or exposure to cold, the disease may return and pursue a fatal course.

That glanders is highly contagious, both to horses and the human being, there can be no doubt; yet in the stable of a friend, some time ago, two carriage horses were affected with glanders, while a third horse, that occupied a stall between the diseased horses and was in constant touch with them and drinking from the same buckets, was not affected, and is yet in good health. The glandered horses were destroyed.

While inspecting the nares of one of my equine patients, after using the nasal douche on him, I had on two occasions the misfortune to receive some of the mucous blown by the horse from his nares into my eyes and about my face. A careful washing and disinfection was at once resorted to, without any untoward event following.

I give these points as of some practical value, to counteract the vague and foolish terror that is inspired by the very name or suspected existence of glanders.

Let me give you a clinical picture of a typical case.

Horse twelve years old, fifteen hands high, weight probably eleven hundred pounds, dark brown, cob build, very high spirited, and of high intelligence and breeding—an animal of rare qualities and great endurance. This horse had for some

months a short hacking cough, that I jocularly denominated an old man's cough. He also had for several months a starchy discharge from one naris after being driven.

About January, 1892, we had an endemic of la grippe in the human population of Pittsburg, but there was no unusual amount of sickness among horses. This patient was not in good condition, however, and was losing flesh, but was spirited and active. One cold day in January, I rode him under saddle to the West Penn Hospital and back, a distance of six miles. The horse was spirited and anxious to go, and I indulged him, bringing him back rather warm, and instead of rubbing him dry, as I directed, the groom let him stand in a draught, while he turned the hose on his legs to wash the mud off, and then put him in his stall without a blanket, and without rubbing his legs dry. The next day the horse seemed excited and nervous, but not otherwise the worse for his ill care and treatment. A few days later he exhibited further evidence of cold; nose running copiously, cough, fever, pulse sixty, and limbs stiff. On examination there were revealed a few small lymphatic nodules along the belly in two direct lines backward from his forelegs; also some nodules along the crease in the neck above the windpipe. Yet the horse ate well and seemed to have usual good spirits; the nasal discharge was inodorous, but copious from the left naris, the mucous membrane of which was swollen, turgid, and of a dark pink hue, but there were no chancres on it; the mucous was now tinged with blood. This was about the eighth day after the severe ride and the maltreatment by means of the cold water and exposure.

The medical treatment at this time consisted of hot bran-mashes, with saltpetre, quinine, carbonate of ammonia internally; antiseptic nasal douch, followed by iodoform insufflations twice daily. There was little change in this condition for six weeks, when the legs began to be œdematous, and there was lameness, especially in the left hind leg, which was increased to twice the natural size by œdema. The farcy buds were now firm and hard, and as large as walnuts along the belly line and the nasal mucous membrane was swollen, and small, punched-out, chancre-like sores appeared in the left naris; the discharge was lumpy and thick, but inodorous, though very considerable, and the box stall was spattered all about each morning with bloody mucous of a gelatinous character, and very elastic and adherent to whatever it attached itself.

A few days later after the douche there was a copious and alarming hemorrhage of venous blood, which was arrested by elevating and tying the patient's head high up. In a week later the chancrous sores in the left naris were more numerous and quite characteristic of glanders; in fact, all the salient features of the disease were now present in undoubted character. The patient's appetite was normal, and the spirits were fair, though the emaciation was pitiful to behold. There was some arrest of the urinary secretion for a day or two, which was restored by the exhibition of rosin and saltpetre. The administration of arsenic, quinine, and iron was substituted for the other medicines, the cough and fever having abated; the copious nasal hemorrhage had occurred several times in the past week; once the amount was over two quarts, and was only arrested by a hot solution of alum, used as nasal douche.

Several of the lymphatics in the throat and neck were now in the eighth week about the size of a small apple, hard and well defined but not tender to pressure; the left nostril was enormously swollen, and studded with glanderous chancres that had sharp edges and gray bottoms resembling the true chancre as seen in primary syphilis; there was no odor that could be considered offensive, but the patient was kept as clean as possible, and great care was observed in every way.

I now gave arsenic, iron, and quinine in large doses, estimated as though I was treating a twelve or thirteen hundred pound man, and after a week further there was an abatement of the naso-pharyngeal symptoms, and the discharge became more distinctly purulent; the animal seemed better, and his coat, which had never stared or become rough but merely dull, looked better and somewhat glossy; his eyes, which for a few days previously were listless, were brighter.

Now, having had a full and very complete opportunity to study the disease in all its phases, so as to be able to recognize

it again, even in its earlier stages, I decided, although the animal was now improving, to destroy him, as I was obliged to absent myself from home, and there was rumored danger of the authorities proceeding against me. I accordingly had the horse shot. The post-mortem revealed extensive chancres of the nasal mucous membrane, from the size of a ten cent piece to the size of a silver dollar; the bones of the nose were denuded, and yet, at the bottom of several of the chancres repair had already begun on the edges of some of the sores.

Now as to prophylaxis. Complete isolation should always be resorted to, and if it is summer, the patient is better in an out enclosure or box-stall completely isolated.

For disinfection of premises after glanders, if the structure is too valuable to burn, first scrape all the wood where discharges have been lodged by being blown from the patient's nose; burn these, then wash all down with a rough broom and a solution of sulphate of iron (two pounds to one-half gallon of water). After this close the place tightly and burn sulphur in it for several hours. After this whitewash with a solution of fresh burnt lime, with a pint of crude carbolic acid, and a pound of sulphate of iron to the gallon of wash, flushing all crevices and corners. If this is done thoroughly there will be little or no danger to animals who occupy the premises subsequently.

Soak the blankets, if valuable, in a solution of corrosive sublimate, 1 to 500 and afterwards wash and boil them. Currycombs, brushes, and other tools should be scrubbed in hot water and soaked in a solution of corrosive sublimate 1 to 500. Harness can be washed in rather warm water, then rinsed in a sublimate solution and afterward rinsed in clear water and cleaned with a carbolic or mercury soap for a few times; care should be taken to eliminate from all the corners about the buckles and keepers any dandruff from the diseased animal.

The all-important question in glanders is to be able to recognize the early manifestations of the disease. This is exceedingly difficult, as the conditions are so masked, but from my observation I should say, where an animal has certainly been exposed to contagion take the best of care of him in every way, and observe the strictest cleanliness, and if later on you observe a persistent but very slight discharge from one or both nares, and some even slight lymphatic nodules along the belly-line of lympatics, from the size of a coffee-grain to a hickory-nut, these are the so-called "farcy buds," which when once felt can never be mistaken. If there is in addition a slight fever, put your horse on good alterative tonics and isolate him, but do not ruthlessly destroy him.

As an experiment I expose a young horse to the contagion, and at a time when he was suffering from colt distemper. The glanderous disease went on to development of farcy buds, slight nasal discharge, and temporary loss of appetite. The symptoms under the above alterative treatment all disappeared in less than two months, and the horse was in an improved condition[1] and although he is now receiving no treatment is, beyond doubt in my mind, safely in a sure convalescence, barring no accidents that will deteriorate his general health.

As to character of the disease I am of the opinion it is of a specific character, that is, contagious through its peculiar bacillus malleis, and that it is to a certain unascertained degree curable if taken early and properly isolated.

But I repeat herein lies the difficulty, viz., an early recognition of the disease. I would not by any means advise the purchase of a horse who upon a little active exercise runs a little starchy mucous from the naris or nares and has some hard nodular kernals like a pea or chestnut in the cellular tissues under the skin along the belly in a line with the forelegs; these are among the earlist objective constitutional symptoms, and I regret to say when present are often so masked as to escape notice of any other than an expert observer.

This is a clinical picture of glanders as I have personally observed it, and without regard to the teaching of the books, and I have given it to you, hoping that it may interest you not only in preventing the disease in those noblest of the lower animals, but also in the human being, who is so liable to be attacked by means to contagion.

1. Three months later this young horse is in fine condition and, so far as I can discover, in perfect health.

THE LIBRARY TABLE.

Notes on the Newer Remedies and their Therapeutic Applications and Modes of Administration. By David Cerna, M. D , Ph. D. Demonstrator of Physiology in the Medical Department of the University of Texas, etc., etc. Philadelphia, W. B. Saunders, 913 Walnut Street, 1893. Price $1.25.

The author has endeavored to furnish the practitioner and student, in as brief a manner as possible, the salient points in the employment of the newer drugs in the treatment of disease. Such of the drugs as are not yet fully studied therapeutically, are given only a passing notice. The book will be useful to the student or practitioner who, without neglecting important matters, can keep abreast of the times in the science and art of modern therapeutics.

Acne and Alopecia. By L. Duncan Bulkley, A. M., M. D., Professor of Diseases of the Skin, New York Post-Graduate Medical School; Physician to the New York Skin and Cancer Hospital, etc. Published by Geo. S. Davis, Medical Publisher, Detroit, Mich. Price, postpaid: Paper, 25 cents; cloth, 50 cents.

The author presents these diseases in a clear, concise manner. No attempt is made to exhaust the subject, nor are references made to authorities. The desire has been to present the conditions as they appear to one daily engaged in relieving them. The author's reputation as a practitioner, is sufficient guarantee of the book's usefulness.

Gonorrhœa and Urethritis. G. Frank Lydston, M. D. George S. Davis, Detroit, 1892.

The author of this valuable little book has succeeded in getting a vast amount of information in its pages. His views as regards the pathology and treatment of gonorrhœa are distinct and practical. He does not advocate the abortive plan of treatment, claiming it a relic of by-gone days.

The work abounds in useful suggestions. To the physician who desires knowledge in the treatment of Genito Urinary Diseases this little book will be a welcome mentor.

The Students' Quiz Series. Edited by Bern B. Gallaudet, M. D., Demonstrator of Surgery, College of Physicians and Surgeons, New York. This new series of Manuals in form of question and answer enjoys the unique advantage of issue under careful editorial arrangement and supervision. The Editor, himself an experienced practitioner and teacher, has assigned the various volumes to well-known specialists and instructors in New York. The thirteen volumes cover the subjects essential to a thorough knowledge of medical science and art, and they may be trusted as authoritative and abreast of the times. They are of value not only to students and teachers, but to practitioners who may desire to recall details for instant use.

The large utility of this series therefore assures an enormous sale and justifies a very low price in proportion to intrinsic value.

Anatomy, Brockway, F. J.; *Physiology*, Manning, F. A.; *Chemistry and Physics*, Struthers, J.; *Histology, Pathology and Bacteriology*, Beach, B. S.; *Materia Medica and Therapeutics*, Warner, L. F.; *Practice of Medicine*, Doubleday, E. T.; *Surgery*, Sands, R. A.; *Genito—Urinary and Venereal Diseases*, Chetwood, C. A.; *Disease of the Skin*, Ransom, C. C.; *Diseases of the Eye, Ear, Throat and Nose*, Miller, F. E.; *Obstetrics*, Hoyt, C. W.; *Gynecology*, Bratenahl, G. W.; *Diseases of Children*, Rhodes, C. A.

So far as works of this nature can be of use these compends answer the purpose of their publication. Lea Bros. & Co. being the publishers is sufficient guarantee of the superiority in this class of medical books.

RECENTLY RECEIVED.

Fermentation, Infection and Immunity. A new theory of these Processes. By J. W. McLaughlin, M. D., Austin, Texas, 1892. Price 2.50.

Hand-book of Massage. By Emil Kleen, M. D., Ph. D., authorized translation from the Swedish, by Edward Mussey Hartwell, M. D., Ph. D. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street, 1892. Price $2.75.

A Manual of Clinical Ophthalmology. By Howard F. Hansell, M. D., and James H. Bell, M. D. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street, 1892. Price $1.75.

A Hand-book of the Diseases of the Eyes and Their Treatment. By Henry Swanger, A. M., M. B., F. R. C. S. I. Fourth edition. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street, 1892. Price $3.00.

Transactions of the Homeopathic Medical Society of Pennsylvania, 1892.

NOTES.

Dr. Nicholas Senn, of Chicago, is now preparing a "Syllabus of Lectures on the Practice of Surgery" arranged in conformity with the "American Text-Book of Surgery, which will be a valuable aid to all who have this great book.

Moullin's Text-Book on Surgery was first published in April, 1891. So favorable was its reception by the medical profession and press that in a little over twelve months it was recommended at more than twenty medical Schools, and the large edition that had been prepared was exhausted. So much for past history.

Early last summer Blakiston, Son & Co., were fortunate in securing the services of Dr. John B. Hamilton, formerly Surgeon-General of the Marine Hospital Service, now Professor of Surgery at Rush Medical College, Chicago, as editor for a new edition. He has now almost completed his work, and within a short time they expect to place before you the book generally revised so as to represent Surgery as it is to-day, with a number of new and beautifully colored illustrations printed in with the text.

"Our claim that Moullin's Surgery is the best text-book for the student, and general work of reference for the practitioner is based upon the reviews of a large number of journals that have pronounced it eminently practical, and upon the fact that so many teachers have seen fit to recommend it. But beyond this we may say that broad principles are stated in a clear, authoritative manner, that the relative value of the different subjects has been carefully considered, and that about the whole there is an air of responsibility that renders plain the fact that the author knows whereof he speaks, not only from his own experience, but from an acquaintance with American and foreign literature. There is also a uniformity of style, an elegance of diction, that attracts and interests the reader, while it makes plain the subject under discussion."

Public Opinion, the eclectic weekly, of Washington, D. C., which has made a feature of offering liberal cash prizes for the best essays on prominent topics, has just announced three cash prizes of $150, $100, and $50, respectively, for the best three essays upon the question "What, if any, changes in the present immigration laws are expedient?" The contest is open to any one and full particulars may be had by addressing *Public Opinion*, Washington, D. C.

The "American Text-Book of Surgery," edited by Professors Keen and White, of Philadelphia, is pronounced a success. It has been adopted as a "Text-Book" by leading Medical Colleges and Universities. Nearly five thousand copies have been placed in physician's libraries, and every indication points to a sale of at least as many copies more in the next six months.

CURRENT LITERATURE REVIEWED.

THE ANNALS OF HYGIENE.

The opening article of December's issue is Prof. Ballin's on "Correct Gymnastic Positions," of which we give fuller note elsewhere. Under the title of "Hunting Health and Bears" Dr. Reed, of Ohio, gives quite a lengthy description of the hygienic advantages obtained by those who, weary and worn out by the duties of an exacting practice, or from the daily wear and care of a humdrum business life, have their vitality exhausted and seek to regain it by spending a vacation in the Rocky Mountains "hunting health and bears."

"Secrets of Health" by Dr. Parker and "Sanitary Day" by Dr. J. F. Edwards about finishes this month's issue.

THE JOURNAL OF NERVOUS AND MENTAL DISEASES.

The only article of any importance in December's number is one on "The Equitable Responsibility of Inebriety" by Dr. Wright. Dr. E. P. Hurd has a translation of Professor Charcot's paper "Vibratory Therapeutics"—the application of rapid and continuous vibrations to the treatment of certain diseases of the nervous system. These two articles together with Dr. Field's paper on "Othæmatoma" comprises all that is of any importance in this month's issue.

ARCHIVES OF PEDIATRICS.

In looking over the list of collaborators, forty-eight in number, which is given a prominent place and which contains the names of men who have devoted a life time to the subject of Pediatrics, and then turning to the table of contents and glancing over the list of original communications one is amazed at the meager exhibition—four papers, three read before the American Pediatric Society last May, the other read before the American Orthopædic Association in September.

COLLEGE AND CLINICAL RECORD.

The Dec. "Record" contains only two papers of any note. "The Puerperal Sepsis," by Dr. E. E. Montgomery, and "Urethral Irritation" by Dr. Mary Jacobi. We trust that this journal which has had an existence of thirteen years will commence its next year by putting its table of contents in a place that its subscribers can find, without having first to read its articles and advertisements.

THE PHILADELPHIA POLYCLINIC.

The "Polyclinic" announces in its December number, that beginning with January, 1893, it will be issued monthly instead of quarterly as heretofore.

Dr. Crozier Griffith has an interesting lecture on "Diagnosis of the more frequent Organic Heart Murmurs." "The Prophylectic and Palliative Treatment of Fistula in Ano" by Dr. Lewis Adler, Jr., is the more important paper.

INTERNATIONAL MEDICAL MAGAZINE.

The December issue appears with eleven original papers, four of which were read last June before the American Climatological Association. Dr. Eli Long has a paper on "Physiology of the Respiratory and Circulatory Changes at Birth as related to Asphyxia and its Treatment." A particularly good article is a Clinical Lecture of Dr. Hulke, of Middlesex Hospital, London, on "Aneurism." Possibly mention should be made of Dr. Dewey's "Study of Insanity following the Keely treatment for Inebriety." The doctor is inclined to think that this treatment consists of a medication of well-known tonics and perhaps cathartics combined with some narcotic or mydriatic drug, probably atropine, together with the powerful influence, mental, with which the patient is surrounded. Dr. Keely to the contrary notwithstanding denies in toto the uses of narcotics.

UNIVERSITY MEDICAL MAGAZINE.

Dr. Daland's article "A Clinical Study of Eleven Cases of Asiatic Cholera treated by Hypodermoclysis and Enteroclysis," is given first place in January's number. This paper is the result of a very careful study of the clinical history and treatment of Asiatic Cholera. These observations were made at the Swinburne Island Hospital in New York Bay last September.

"Mydriatics in Ophthalmology," by Dr. Risley, is given second place. In considering these drugs the doctor states that it is, first of all, important that the solutions of the salts of the alkaloids in use should be bland, since any irritation of the tissues is especially harmful and directly opposed to the purposes for which the drug is usually employed.

Dr. Sinkler's paper "Insanity in Early Childhood" completes the articles of interest in this number.

PERISCOPE.

THERAPEUTICS.

Peroxide of Hydrogen in Gastric Disturbances.

A. N. Iakovleff (St. Petersburg Inaugural Dissertation, 1892, No. 109) has made nine experiments on eight subjects, of whom some were suffering from chronic gastritis, some from nervous dyspepsia, one from cancer of the stomach, and one from hyperacidity of the gastric juice, while the eighth was healthy. In all but two cases the patients were given 4 c. c. of a three-per cent. solution of H_2O_2 before breakfast, dinner, and supper. The patient with malignant disease and the one with hyperacidity took a two-per cent. solution, 4 c. c. from three to six times a day. The following is a summary of the results of these experiments: (1) Under the influence of H_2O_2 the general acidity of the gastric juice and the proportion of free HCl invariably increase. (2) The proportion of lactic acid always decreases, while in later stages of digestion the acid disappears altogether from the gastric contents. The phenomenon should be attributed to the well-known antifermentative properties of H_2O_2. (3) The digestive power of the gastric juice is markedly intensified. (4) In the case of hyperacidity (as well as in another similar case in the author's private practice) the administration of the peroxide was followed by a distinct aggravation of all gastric symptoms, while in all others, including that of cancer, marked improvement was observed, the appetite improved, the epigastric pain ceased, eructations and vomitings decreased or entirely disappeared, the bowels became more regular, etc. The author further made experiments on frogs and dogs, his object being to elucidate the effects of H_2O_2 on the circulation. The results agree pretty closely with those published by Guttmann and Schwerin, the essential point being that H_2O_2 is decomposed by the blood, and hence can give rise to gaseous embolism with its consequences, such as dyspnea, dilatation of the cardiac cavities, etc. From these facts, Iakovleff concludes that injections of H_2O_2 into the circulation for therapeutical purposes, as suggested by some authors, are absolutely inadmissible.—Brit. Med. Jour.

The Simplification of Therapeutics.

The day of a more precise, hence more scientific application of remedies in the management of disease is dawning. Polypharmacy is the offspring of that mysticism with which our forefathers were wont to surround themselves unconsciously. In all other phases of human endeavor a spirit of inquiry is abroad; the devout churchman even asks questions to-day which a few decades ago he would have deemed sacrilegious to entertain. He does not on that account lose aught of the true essence of religion; but he satisfies his reason as far as is consistent with his faith. We cannot marvel, therefore, if the doctor's clients often want to learn something of the agencies resorted to in combating an enemy supposed to reside within them.

The multi-pharmaceutical prescriptions we give him are not open to his comprehension; indeed candor would oft compel the prescriber himself to acknowledge a lack of rational appreciation of the objects and aims of his medication.

It has come, about, therefore, that the latter has become more simplified. The shotgun prescription of a former epoch is now rarely seen. The trend of teaching now is in the direction of the rationale of remedies. Thus the student becomes less slavish in his adherence to formulæ because he understands better the principles underlying the action of their component parts.

We may learn a valuable lesson on the Evolution of Simplified Therapeutics, and its enormous value, from the surgeon. When antiseptic surgery first astounded the filth-ridden surgical world, the minutiæ of spray, gauze, protective, etc., seemed absolutely necessary to success. We discover now that poly-antisepsis is unnecessary; that the chief element of true antisepsis is asepsis or cleanliness. The scrupulous, unflinching, searching and skeptical cleansing of the field of operation, of the operator, and of the wound, proves today to be the source of the most brilliant surgical statistics. Dr. C. Schimmebusch, upon whom devolves the preparation of cases for the most renowned surgical clinic in Germany, considers "boiling water as the most powerful of all disinfecting agents." He says: Instruments are best sterilized by boiling in a one-per cent. watery solution of carbonate of soda for five minutes, the soda increases the sterilizing power of boiling water, because it removes all fatty material and prevents rust. What is this but plain, unvarnished cleanliness. While this evolution to the simpler, hence higher, type of treatment is going on in the brilliant field of surgery, let the physician draw lessons of value from it. May we not by simplifying medication, by boiling down, as it were, our formulæ to active therapeutic entities, by eliminating mystical, inexplicable methods, and holding fast only to simple, rational, demonstrable therapeutic agents, do as much for internal disease as the surgeon has done for the palpable or external. It is a consummation devoutly to be wished; it must come in good time. In the meanwhile the sick are languishing or dying under our ministrations. "Let us be up and doing." Who shall be the Lawson Tait of Internal Medicine? The man who is bold enough to combat the prejudices of the most prejudiced middle class—the medical practitioner.—Gail. Med. J. Edit.

Cocaine Antidotes.

S. Mitchell (Medical Record) has found that while ammonia, digitalis and brandy will relieve the milder toxic manifestations of cocaine poisoning, they signally fail when these symptoms are superseded by severe præcordial pain, weak and rapid pulse, sighing respiration, borborygmus and belching of wind, muscular rigidity, and later paralysis of the whole body except the brain, which is unnaturally active. In such a case he used a large teacupful of clear coffee, and has found it equally efficacious on subsequent occasions. It can be administered cold or hot. He makes no mention of amylnitrite.

Gluck (Ibid.) advocates dissolving the cocaine in a 3 per cent. solution of phenol. This, he claims, prevents the toxic effects of the former drug and renders the solution stable; as is well known, such solutions otherwise lose their anæsthetic effect after twenty-four hours. Phenol, besides, has a certain anæsthetic power of its own, forms a superficial eschar, which prevents absorption of the cocaine, destroys bacteria, fungi, etc., prevents decomposition in the solution, renders it aseptic and wards off reactive congestion.

The Use of Cod Liver Oil in Rheumatism.

Cod liver oil has obtained such a definite reputation against tuberculous and scrofulous affections that we are apt to forget its virtues in other maladies. In the first instance, it was employed against chronic rheumatism, and gained enthusiastic opinions. I have before me the original report in reference to this latter use by Dr. Bardsley, of Manchester, who in April, 1807, wrote that it had then for thirty years enjoyed a very high local reputation. It had been much used in the Manchester Infirmary by Dr. Percival and by Dr. Bardsley himself. The latter reports that it is variable in its efficacy, often in the mild and more common forms not doing any appreciable good. He thought it most useful in chronic cases in elderly persons and in women debilitated by parturition. He thought that it seldom did good unless it fattened. His dose was half an ounce to an ounce and a-half twice a day, and he found warm beer to be, with the laboring classes, the favorite vehicle. If benefit was obtained, it ought to be continued for six or eight months. He asserts:

"I have seen a few patients recover entirely by the exhibition of the oil who on their admission into the house were unable either to preserve the body in an erect position, or support its weight on the lower extremities." The consumption of cod liver oil in the Manchester Infirmary from 1776 to 1807 had averaged fifty or sixty gallons annually. It now amounts to four hundred gallons. The profusion with which new chemical remedies have been supplied to us of late years may, it is very possible, have led to the comparative neglect of old ones, and that, perhaps, not always to the advantage of our patients.—Arc. of Surg.

MEDICINE

The Disadvantages of Hot-water Bottles

The custom which so largely prevails mainly among ladies of using hot-water bottles in bed for the purpose of warming their feet, time-honored as it is, cannot after all be said to have had much to commend it. Indeed, there is a good deal more which can be urged against it than can be said in its favor. Ladies who resort to the habit, for habit it soon becomes in the majority of instances, suffer from cold feet, a condition which, it is needless to say, does not particularly conduce to the wooing of sleep. But cold feet is a symptom which should not be left to be dealt with at the end of the day; on the contrary, those in whom it occurs should bear in mind that in ordinary health the proper remedy for this condition is exercise. Nothing tends more to cause "cold feet" than sitting about the house all day, or reducing the daily exercise to a minimum amount, either on account of laziness or feebleness of will-power for exertion. Some persons console themselves with the reflection that they were born with cold feet, and on these grounds hold that it was always intended that they should warm them by artificial means, thus ignoring the necessity which exists for exercise. Hot bottles, too, used in this way become a fertile source of chilblains, and, moreover, are not devoid of danger. We heard the other day of two cases in which the ladies using them were seriously scalded by the cork of the earthenware bottle containing the boiling water suddenly popping out. This brings us to the consideration of whether hot bottles should be used at all, and we think the answer should be in the negative. The best way of warming cold feet at night is to clothe them with warm woolen socks or stockings, which may be slept in. By this means the temperature of the feet is gradually raised, and is equably maintained throughout the night without trouble or risk. Another useful plan is to raise the feet on a pillow about two inches above the knee, so as to facilitate the return of the blood through the veins of the limbs.—Med. Press.

The Knee-jerks in Supervenosity.

Hughlings Jackson has observed that knee-jerks are absent in some cases of emphysema with bronchitis, where the blood has become venous to an extreme degree. Dr. Russell, at his suggestion, examined the knee-jerks of a dog, artificially asphyxiated by clamping its trachea; the animal's knee-jerks became exaggerated until knee clonus was produced; but in the third stage of asphyxia, no reaction could be obtained. As asphyxia diminishes, and in an extreme degree annuls, the excitability of the motor cortex, it may be that the preliminary exaggeration of the knee-jerk observed by Dr. Russell, was owing to loss of cerebral control upon lumbar centres, and that these spinal centres succumbed later to the influence of supervenous blood, than did the controlling cerebral motor centres. When oxygen is given to cyanosed patients, their

knee-jerks should be tested before and after the gas is administered. If successfully used, that is, if the patient's blood becomes well oxygenated, it is possible that knee-jerks obtainable before administration of the gas, may be elicited afterwards. If supervenosity causes loss of the knee-jerk, the fact may be important with reference to the apoplectic state, and also with regard to post-epileptic coma. In some cases of apoplexy from cerebral hemorrhage, the knee-jerks are lost, in others not. The author suggests investigating these points in all cases of supervenosity. —Brit. Med. Jour.

The Etiology of Acute Bright's Disease.

Agnes Bluhm (Deutsch. Archiv. f. klin. Med.) has classified the causes of all cases of Bright's disease occuring in the Medical clinic at Zurich, during a period of 5½ years. The infectious diseases are the chief cause of acute Bright's disease, occuring as it does after typhoid fever, acute exanthemata, erysipelas, variola, diphtheria, tonsillar angina, croupous pneumonia, acute peritonitis, and acute miliary tuberculosis. Among the chronic infectious diseases, tuberculosis and syphilis are mentioned; a number of skin diseases are also included. Eczema, psoriasis, tuberculosis cutis, and erythema nodosum. Among toxic causes, three cases are noted following the use of mercury, lead and thallin. Among the other causes of acute nephritis are mentioned; intestinal diseases, icterus, circulatory affections, pregnancy, leukemia, and gonorrhea. In nine per cent. of the cases, no etiology could be determined. The causes of the chronic parenchymatous form of nephritis are more uncertain, but it was due in the larger number of cases to malaria, misuse of alcohol, and unhygenic conditions. Among the causes of genuine contracted kidney, syphilis was present in eleven per cent. and arteriosclerosis in 17.7 per cent. of the cases; misuse of alcohol and lead were also concerned in the etiology of this form of nephritis. Regarding the development of acute nephritis after acute infectious diseases, it was observed that neither the severity nor the course of the primary affection exerted any special influence on the nephritis.—Cent. f. klin. Med.

SURGERY.

Poultices are remedial when the "sign is right," but some physicians have trouble in discerning when it is right, and place the poultice on the wrong place. A poultice should not be applied to a recent wound unless the physician wishes to interfere with the "vis medicatrix naturæ." It seems almost incredible that a physician will advise that a crushed finger, hand or other injured part be poulticed, and advise this measure day after day; but such is the lamentable fact. We call attention to this poulticing of recent wounds in particular, because it has been our luck to see several cases of this form of malpractice recently, and if any one who is in the habit of poulticing recent wounds should happen to see this we will be amply repaid if he or she will stop and consider the harm that will be done by so unscientific a procedure. If you wish heat and moisture for the relief of pain and congestion, immerse the part in hot water until the effect is accomplished. This will give greater satisfaction to your patient and do real good. "The sign is right" for a poultice when you wish to devitalize the part and hasten or promote the suppurative process. Don't apply them to recent wounds. —Kansas Med. Jour.

Treatment of Hemorrhoids.

Mr. J. Brindley James states (Brit. Med. Jour.) that for some years he has been in the habit of treating hemorrhoids by the simple process of applying calomel to them with the finger alone, and without a single exception he has done so with marked success, especially when inflammatory action was obvious in the hemorrhoidal mass, characterized by mucous discharge, and hemorrhage, accompanied by a most painful sensation of weight in the rectal region. All these symptoms under this simple influence were speedily relieved, with the still more important subsequent advantage of the patient's restoration to ease. A short time since a patient came to him suffering so acutely that he could neither sit nor walk freely, each movement of the body entailing excruciating pain. He has now seen him thoroughly enabled to pursue his usual occupation in happy immunity from these distressing symptoms.—Ex.

Treatment of Appendicitis.

Appendicitis of the perforating type may generally be diagnosed by symptoms of shock, which speedily appear after the ulcerated appendix has developed. An anxious countenance; blue finger-tips; nose and ears cold; pulse and respiration excited, rapid or sighing, and out of relation with the temperature; tenderness in the abdomen; pain in the abdomen, generally in the neighborhood of the right inguinal region, are pretty reliable data for diagnosis of perforating appendicitis. When these symptoms occur in a case, there is no alternative but to open the peritoneal cavity and remove the offending appendix. But in another type of appendicitis, in which there are none of the symptoms of shock above described, except tenderness in the inguinal region with more or less rise of temperature, a surgeon may wait until he is satisfied that suppuration exists, and then incision should be made and the abscess evacuated. If the appendix can be readily reached and separated from the surrounding structure without breaking through the neighboring adhesions of the peritoneal cavity, it may be removed; but in the majority of cases of suppurating peritonitis in which there is a local abscess about the appendix, which can be reached without perforating the peritoneum, it is better to simply drain the cavity than to insist upon a removal of the ulcerated appendix.—Col. and Clin. Rec.

Can a Septic Bullet Infect a Gunshot Wound.

L. Lagarde (New York Medical Journal) says:

The vast majority of cartridges in original packages are sterile and free from septic germs. This is due to the thorough disinfection and absolute cleanliness observed in the process of manufacture.

The disinfection with heat, acids, and alkalies, and the rigid rule of cleanliness used in the process of manufacture, are employed to exclude grease and dirt, as the latter impair the keeping qualities of the powder and disturb ballistic values.

The majority of gunshot wounds are aseptic, because the vast majority of the projectiles inflicting them are either sterile or free from aseptic germs.

Cartridges out of original packages show micro-organisms upon them, and these are not entirely, if at all, destroyed by the act of firing.

Anthrax, when applied to the projectile of a portable weapon, is seldom if ever entirely destroyed by the act of firing.

When a gunshot wound is inflicted upon a susceptible animal by a projectile infected with anthrax, the animal becomes infected with anthrax and in the vast majority of instances dies from said infection.

The heat developed by the act of firing is not sufficient to destroy all the organic matter on a projectile, the cherished notion of three centuries and more to the contrary notwithstanding.

The results justify the assumption that a septic bullet can infect a gunshot wound.

OBSTETRICS.

Prevention and Cure of Puerperal Sepsis.

In a paper on this subject (Cin. Med. Jour.) Dr. W. W. Potter arrives at the following conclusions:

1. Obstetric engagements once accepted should be faithfully fulfilled, no matter how awkwardly they fit. Apply the same rule of cleanliness to the poor and rich alike. Decline service when this cannot be done. Human life is too precious to jeopardize it by slip-shod, half-hearted or indifferent service.

2. The physician should be a model of cleanliness in body and clothing, and should insist upon the observance of similar conditions by all persons in and about the lying-in chamber.

3. The delivery room, whether in hovel or palace, court, alley, or avenue, should be simple in its furniture and hangings, and be cleaned with soap, water, and whitewash (if possible to use the latter) immediately before occupancy by the puerpera.

4. The delivery bed should consist of a new tick filled with sweet and clean straw, covered with a blanket, impervious dressing, and a folded sheet, with other covering to be allowed according to season. Exceptions to this simple bed should be as few as possible, and in no event should a bed be substituted that has been used by the sick, or that is not beyond even a suspicion of infection.

5. The patient should be especially prepared for delivery by baths and enemata, vaginal douches, and clean clothing; and labor should be conducted on the lines of absolute cleanliness, with few digital examinations and a complete delivery of the secundines.

6. Lesions of the genital tract should receive careful attention; rents of the perineum should be repaired, and so, too, in some instances, should tears of the cervix.

7. Antiseptic solutions containing a germicide should be used for cleaning the hands and instruments of the operator. Intrauterine irrigation with sterilized water should be carefully employed after operative midwifery, either manual or instrumental.

8. Finally, if sepsis proceeds to suppuration and abscess the abdomen should be opened, pus cavities emptied, irrigation used, and drainage established. If the uterus and adnexa become thoroughly infected they should be extirpated.

NEWS AND MISCELLANY.

The Medical Society of the State of Pennsylvania will meet in Williamsport, May 16, 17, 18 and 19. All who desire to read papers at the session must submit them by title and probable time needed, to Dr. H. G. McCormick, Chairman of the Committee of Arrangements, Williamsport, not later than March 1st.

ARMY AND NAVY.

FROM JANUARY 1, 1893, TO JANUARY 7, 1893.

First Lieutenant Isaac P. Ware, Assistant Surgeon, U. S. Army, is assigned to duty at Fort Sill, Oklahoma Territory until further orders.

The leave of absence for two weeks, on surgeon's certificate of disability, granted to Captain Adrian S. Polhemus, Assistant Surgeon, U. S. Army, is hereby extended fourteen (14) days, from December 30, 1892, on surgeon's certificate of disability.

Lieut. Col. Charles H. Alden, Deputy Surgeon General, U. S. A. to be Asst. Surg. Genl. with the rank of Colonel, Dec. 4, 1892, vice Heger, retired.

Major Albert Hartsuff, Surgeon, to be Deputy Surg. Genl. with rank of Lieut. Col. Dec. 4, 1892, vice Alden, promoted.

Capt. Louis M. Maus, Ass't. Surgeon, to be Surgeon, with the rank of Major, Dec. 4, 1892, vice Hartsuff promoted.

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ORIGINAL ARTICLES.

W. F. McNUTT, M. D., M. R. C. S., Ed., etc., San Francisco.
Five Cases of Vaginal Hysterectomy for Malignant Disease of the Uterus.—All Recovered 79

CLINICAL LECTURES.

PROF. ROSWELL PARK.
Talipes Fracture of Acromial End of Clavicle, Double Fracture of Shaft of Femur, Hare-Lip 83

COMMUNICATIONS.

DR. J. E. HAYES.
Cerebral Syphilis 86

A. M. CARTLEDGE, M. D.
Sarcoma of the Breast at the age of Sixteen Years: Ovarian Cyst 88

DR. ALBU, in Berlin.
Clinical and Experimental Contribution to the Treatment with Creasote of Pulmonary Tuberculosis . . 89

SOCIETY REPORTS.

The Medico-Chirurgical Society of Louisville 90

CORRESPONDENCE.

Revival of "Heatonism;" Hernial Institutes and Subcutaneous Injections for Hernia. 95

EDITORIAL 97

TRANSLATIONS 101

ABSTRACTS 103

CURRENT LITERATURE 110

PERISCOPE

MEDICINE 114

SURGERY 116

NEWS AND MISCELLANY 117

ARMY AND NAVY 117

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# of Manufacturing

a few figs are used, but to distinguish it from all other laxatives, and the United States Courts have decided that we have the exclusive right to apply this name to a laxative medicine. The dose of

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as a laxative is one or two teaspoonfuls given preferably before breakfast or at bed time. From one-half to one tablespoonful acts as a purgative, and may be repeated in six hours if necessary.

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THE
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REPORTER.

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ORIGINAL ARTICLES.

FIVE CASES OF VAGINAL HYSTERECTOMY FOR MALIGNANT DISEASE OF THE UTERUS.—ALL RECOVERED.*

W. F. McNUTT, M. D., M. R. C. S., Ed., etc., San Francisco.

Case I. Mrs. B., age 57, born in New York, had one child, 1851, no cancer history, menstruated at 17, ceased at 41. At age 53 commenced having slight uterine hemorrhages; consulted several physicians in regard to it, had taken medicine and had astringent injections, etc., with the effect of partially controlling the bleeding. When she consulted me first at my office she had slight hemorrhage, mixed with a thick, ropy albuminous looking discharge—found the uterus slightly enlarged, canal tortuous and irregular, and had difficulty in passing the sound; neck granular and bleeding easily; made applications with astringents, ordered lead and carbolic injections, advised rest. There being no improvement and considering the case cancerous, I called Dr. Beverly Cole in consultation, when we dilated the uterus with Hager dilators. There was discharge of at least half an ounce of white-of-egg-like fluid mixed with blood, the whole neck of the uterus was nodular and presented an epithelial-like softened appearance. The woman was losing weight, strength and color; there was no mistaking the diagnosis, viz., *epithelial cancer.*

Mrs. B., having consented to an operation, I determined to make a vaginal hysterectomy, and on November 27th, 1888, removed the uterus. The external parts were shaved and thoroughly cleaned by soap and carbolized water, the vagina was disinfected and the patient placed in the dorsal position. The uterus was brought down by a strong vulsella and a small vertical incision was made through the anterior vaginal wall. An aneurism needle with a ligature was passed through the opening, and brought out through the wall three-fourths of an inch to the right; this section was tied and divided with scissors; this process was continued until the neck was enucleated; the connective cellular tissue was mostly broken up by the finger; the uterus was then easily brought further down, not turned over, and the broad ligaments secured *en masse* by a carbolized silk ligature. I then put long compression forceps on the ligaments between the ligature and uterus, and divided the broad ligaments close to the uterus up to its upper margin, and over this undivided upper fold of the ligament I placed a ligature and cut the uterus free. I then tied these last two ligatures together stretching the broad ligaments across the cavity and making a roof, as it were, to the vagina; the vagina was then packed with iodoform gauze; the forceps were taken off in forty-eight hours. She was kept four weeks in bed; and seventeen months after the operation she was as well as she ever was. At no time after the operation was there any marked rise in temperature.

Of the pathology of this case Prof. D. W. Montgomery says: "Mrs. B. had an extensive neoplasm of the cervix uteri, both simple and malignant. The simple new growth was a papilloma. Below the papilloma was a epithelioma infiltrating very extensively the connective tissue."

*Read before the California Medical Society.

Case II. Mrs. P., aged 44, married at 20, two children, youngest 17 years old, had one miscarriage 13 years ago, no cancer history. This case was under the care of Dr. W. H. Davies, who had attended her for several months for uterine hemorrhage, using internal remedies, injections and several times having to tampon the vagina with cotton saturated with Monsel's solution.

Dr. Davies told her his efforts were only affording her temporary relief and more radical measures would have to be tried. I was called in consultation and found the patient exsanguine to an alarming degree; an epithelioma of the cervix was unmistakable; the slightest touch caused profuse bleeding, necessitating the tampon after our examination. We advised removal of the uterus, and after a few days' delay she consented to the operation. July 25th, 1889, the operation was made. I gave the patient ether, and, placing her in the lithotomy position, the epithelial fungoid bleeding mass was curetted off and the bleeding in a measure controlled by hot water before enucleation of the cervix was commenced. Drawing the uterus well down with a vulsella the enucleation was soon made, the adhesions separated, and the broad ligaments clamped with compression forceps (no ligatures used), uterus cut loose. The forceps were left on fifty hours. The only difficulty encountered in this operation was the exhausted and exsanguined condition of the patient before commencing the operation. During the latter part of the operation she was constantly plied with hypodermic injections of whiskey, which were necessary to keep up the heart's action.

The patient was in excellent health and spirits nine months after the operation, with the exception that she has a small vesico-vaginal fistula, which did not give any evidence of its presence until after the fourth week.

Case III. *Hysterectomy (for cancer) and Ovariotomy—Double Operation.* Mrs. F., age 67, a thin, wiry, but apparently well nourished old lady came to Dr. R. M. Elliott, of this city, from Washington Territory, on June 24th, 1889, suffering from an offensive discharge from the uterus. She had borne a large family of healthy children, and never had any severe illness up to the present time.

While riding on a buckboard about five months ago, the horses in leaping a ditch tipped her backwards, and she fell, striking on her sacrum. The injury caused her considerable pain at the time, but it gradually passed off leaving no noticeable trouble afterwards. A smooth, elastic, immovable, round tumor could be felt through the abdominal wall in the region of the ovary. There was a purulent vaginitis and an excoriation of the os uteri with a purulent bad smelling discharge from the os. There had been at no time either pain or hemorrhage. After cauterization by Dr. Elliott with nitrate of silver, (the solid stick), the excoriation healed in part, the discharge from the os in a great measure ceased, and she returned to the country much improved, but with a slight discharge from the vagina which still persisted, and for which an injection of sulphate of zinc and acetate of lead, each 20 grains, tincture of opium one drachm, and water to eight ounces, was prescribed.

After two weeks she wrote stating the offensive discharge had returned just as before. On coming back to the city again for treatment a much more serious state of affairs was found than at first. The discharge was as abundant as before instituting treatment, and a fungoid, easily bleeding mass was seen projecting from the os uteri.

Dr. Elliott called me in consultation and an operation was advised, the patient was sent to the Children's Hospital and the date of operation set for August 11th, 1889.

Because of the abdominal tumor, the exact nature of which could not be determined before the operation, it was decied to first open the abdomen, examine its contents, and then act *pro re nata*. After a careful toilet, the abdomen was opened in the median line, and an ovarian cyst about the size of a cocoanut was found united by extensive adhesions to all the surrounding viscera, especially to the intestines. The adhesions were carefully separated, principally by the finger nails. After much labor the tumor was set free from the intestines, it still being firmly adherent to the uterus. The cyst contents were then evacuated. The uterus was found much enlarged; being about the size it should be at the second month of gestation; it was soft and boggy to the touch; adherent to the

surrounding tissues, especially posteriorly, an abscess being found between the uterus and the rectum. I then decided to enucleate the neck of the uterus per vaginam and remove the uterus through the abdominal opening. In enucleating the neck and going up between the rectum and the uterus the aforementioned abscess was opened and a large quantity of foul smelling pus was evacuated. The os uteri was also opened up and a large quantity of pus came away from the uterine cavity. The pus being got rid of per vaginam, and the neck being thoroughly enucleated, the operative procedures were subsequently carried on through the abdominal opening, removing the entire womb, the cyst in connection with it, and the left Fallopian tube.

Despite the age of the patient, the length of the operation (lasting fully three hours) and the amount of disturbance caused by the breaking up of the very extensive adhesions and the separation of such large masses of tissue, the patient's temperature never went above 101°, and the only bad symptom was some meteorism occurring on the third day and gradually subsiding again. Very little blood was lost during the operation; a point of great importance in elderly persons in whom the blood-making functions are not active.

Dr. D. W. Montgomery's report on the pathology of the parts removed, appeared in the reports of the San Francisco Medical Society where the specimens were shown. He says that it was an epithelioma of the cervix uteri, the infiltrations involving pretty much the whole cervix.

Case IV. Mrs. P., aged 32, married, had children, was under Dr. S. S. Stambaugh's care for several months for fever, pain and uterine hemorrhage. I examined her in consultation with Dr. Stambaugh August 27, 1889; the uterus was much enlarged and immovable, cervix nodulated and vascular with granulating bleeding surface; broad ligaments thickened. There was a bad smelling vaginal discharge. There was no doubt about the cancerous nature of the disease. Mrs. P., came from a very malarious locality, and had high fever every day, notwithstanding Dr. Stambaugh had treated her for malaria.

We informed Mrs. P. of the nature of her disease, and that nothing but an operation offered her any chance from a disease which must soon prove fatal. The enlargement and fixed condition of the uterus with the involvement of the broad ligaments made the prospect for an operation bad. She, however, wanted to avail herself of the chance an operation would afford, and on September 12, 1889, I operated. After careful preparations as to washing, shaving and vaginal antiseptics, the uterus was seized with a strong vulsella, but on account of the fixed condition could be pulled down but little, the neck was soon enucleated with instruments which I had made for the purpose.

The extensive adhesions were broken up with great difficulty, and the ligaments were so involved that it was necessary to remove them.

The hemorrhage was controlled by compression forceps, which remained on about fifty-two hours; no ligatures used; the vagina filled, as in all the other cases with iodoform gauze, and the woman put to bed. She at no time had so much fever after the operation as she had before, and she made a good recovery.

Case V. Mrs. W., aged 38, born in France, first menstruated at the age of fifteen, never was regular; married at twenty-three, one miscarriage five years after caused by lifting a heavy weight, followed by metritis and peritonitis, was confined to bed two months, never fully recovered; no cancer history.

Began to complain of uterine pain and hemorrhage about three months ago, for which she had consulted physicians at various times, who had given her medicine and injections without relief. She consulted Dr. Frances R. Marx, who, considering the case cancerous, called me in consultation. On examination I found great tenderness; the whole uterus enlarged and fixed; cervix indurated and nodular, with very vascular granulations which bled freely from the slighest touch; there was a constant watery, bloody colored discharge, having a characteristic odor; the cancerous cachexia was well marked and the diagnosis of cancer was unmistakable.

Being informed of the nature of her case and the only remedy, removal of the uterus, she at once consented to an operation. She was sent to the Children's Hospital. December 3, 1889, I removed the uterus. On account of the large size and fixed condition of the organ, accompanied by the fact that the woman had never

borne children, the operation was a most difficult one. After enucleating the cervix and separating the adhesions to the bladder it was still impossible to pull the uterus down—the attempt to turn it over backward was equally unsuccessful. After a time, however, I succeeded in turning it over forward, having fixed one blade of the vulsella into the fundus and made steady traction. The broad ligaments were then clamped with compression forceps (no ligatures used), and the operation finished by cutting the broad ligaments. The vagina was packed with iodoform gauze and the forceps removed after forty-eight hours. This large fibrous tumor which you see in the fundus of the uterus is what prevented the uterus from descending and made it so impossible to turn it over backwards.

The operation altogether was very difficult, and the hemorrhage from this softened, vascular, broken down, cervical portion was excessive and uncontrollable during the operation. The woman, though exsanguine by the time the operation was finished, made a good recovery, and is at present enjoying very fair health.

The first operation was the only one in which I used the aneurismal needle and ligature in enucleating the cervix. In the other cases the enucleation was done with instruments which I made for the purpose.

My object in reporting these cases is to call attention to the fact that we have in hysterectomy a remedy even for cancer of the uterus; to assist in establishing hysterectomy as a legitimate and recognized surgical operation, and to hasten the time when the surgeon will as promptly and confidently resort to removal of the uterus for cancer as he does to the removal of the breast.

Of these five cases all were married women, four had borne children, while the fifth case had had one miscarriage.

About the frequency of cancer of the body of the uterus, as compared with that of the cervix, there is great diversity of opinion, as is also the case in regard to the merits of the operative procedure for cancer of the cervix—whether to remove the cervix only or to make hysterectomy.

A recent able writer on cancer of the uterus, Dr. John Williams, Professor of Obstetrics in Queen's College, London, strongly advocates amputation of the cervix when the cancer apparently involves only the cervix, saying: "That it is possible to extirpate cancer from the uterus by supra-vaginal amputation, and that, in so far as the prevention of recurrence in the uterus is concerned, total extirpation of the organ presents no advantages over partial amputation."

It is not so surprising that Dr. Williams takes this ground, as he believes he has fully demonstrated that the tendency of cancer of the cervix is to spread laterally rather than to follow up the uterine cavity and involve the body of the womb. A careful examination by Professor Montgomery of the uteri of my cases does not go to confirm Dr. Williams' opinion, that in cancer of the cervix the tendency is only to extend laterally. Dr. Montgomery found the cancer cell extending up the mucous lining of the uterine canal.

While Dr. Williams advocates and practices the supra-vaginal amputation, he certainly has failed to make it clear how we are to diagnose with any certainty in which cases there is no cancerous involvement extending above the cervix.

There may be cases when this supra-vaginal amputation would be all that is necessary; in many cases, however, the cancerous tissue would not all be removed, and there is no means of differentiating the cases.

In connection with these cases, I will crave the indulgence for a word about laparotomy. Now, that laparotomy has become so common, no one thinks of making an elaborate and detailed account of this operation. In the past year I have, however, made three or four that are not devoid of interest to those who are interested in abdominal surgery.

Two of the cases appeared to be intra-ligamentous cysts. One very large, with no pedicle, was imbedded between the layers of the broad ligament deep in the pelvis. Enucleation was first attempted, but the capsule was so vascular that the attempt to shell it out had to be abandoned. I finally tied its whole broad base in eight sections. Including too much tissue in the last section next to the uterus, the ligature cut the tissues and the bleeding was profuse. After cutting away the sac close to the ligatures, I resorted to powdered Monsel's to stop the hemorrhage, which it did, using about three teaspoonfuls. A drainage tube was used, and the wound closed in the usual manner. There was

considerable inflammation, with a temperature of 104° for three or four days, when the fever subsided and the patient made a good recovery. She was out in five weeks. In the second intraligamentous case the cyst was small and there was no difficulty in enucleating it. The hemorrhage, however, was very profuse, and was again checked by putting Monsel's freely into the bed of the cyst. A drainage tube was used. Some fever followed, and the woman made a good recovery. These two cases made up my experience with Monsel's in the abdominal cavity. Just how to manage these intraligamentous cysts seems to be a matter for each individual operator to determine after he has opened the abdomen and carefully examined the case at hand.

The third interesting case was that of a solid ovarian tumor weighing between seven and eight pounds. The woman, though very weak, made a good recovery. Professor Montgomery, after a careful examination, determined it to be fibroid. While solid ovarian tumors are not common, the fibroid variety is probably the least common of all. The most troublesome part of the operation for these solid tumors often is the management of the intestines, owing to the great length of the opening required to lift out the tumor.

CLINICAL LECTURES.

TALIPES FRACTURE OF ACROMIAL END OF CLAVICLE, DOUBLE FRACTURE OF SHAFT OF FEMUR, HARE-LIP.*

Prof. ROSWELL PARK.

This patient is a boy four or five years old who presents a well-marked case of talipes equino-varus. His parents have been too poor to provide proper mechanical support for the foot and the boy has worn a very cheap, inefficient shoe which has been of no use in correcting the deformity. They consulted me with reference to an improved form of shoe but I told them that I should not recommend a shoe until after an operation.

The question arises, is this a case in which the deformity is due to essential muscular weakness, or has the apparent atrophy of the muscles come about from lack of use of the foot? The peronei tendons on the outside of the foot and leg act like a bridle rein opposed to the tibiales tendons on the inner side. Naturally, if the peronei are paralyzed, the foot will be turned in and I think the present condition is largely due to such trouble. Even if the weakness of the peronei were not the original cause, the deformity is at least perpetuated by their present inability to overcome the pull of the tibiales.

After cleansing the foot and leg and applying an Esmarch bandage, I will cut the tendo Achilles by the ordinary subcutaneous method. You will ask why the Esmarch bandage was used. Certainly not for the almost bloodless section of the tendo Achillis, but because I intend to divide the tendons on the inner border of the foot by an open incision according to the operation of Dr. A. M. Phelps, of New York. After doing this, you see that the slightest touch restores the foot to its normal position, the wound is closed by dusting iodoform over it and applying layers of iodoform gauze, bichloride gauze and cotton, and the whole is kept in place by a roller bandage. When the tourniquet is taken off, the blood will rush back into the foot and an aseptic blood-clot will be thrown out to heal the wound, which I have made.

This case being one due almost entirely to lack of muscular control of the foot, the bony deformity is not great and an operation on the tarsus is unnecessary. The foot is restored manually to its proper position and is held in a position of overcorrection while I apply a plaster-of-Paris dressing. We have every reason to expect primary union under this dressing, by the organization of the blood-clot. The parents of the child must have directions about later using massage of the leg muscles to the best of their ability. Without some such means to stimulate the peronei and the sural muscles, the foot would relapse almost to its former state and con-

* Buffalo General Hospital Surgical Clinic, reported by A. L. Benedict, A. M., M. D.

siderable care must be taken to keep the foot in its restored position by making the external and posterior muscles do their proper work.

This patient has sustained a fracture near the shoulder joint, the result of a fall on the shoulder. The doctor who first attended him diagnosed fracture of the acromion and applied a dressing which was not disturbed till I saw the case two days afterward. It struck me at the time that the dressing could not keep acromion in place as there was no provision for pushing the arm upward against this prominent process. On removing the dressings to see how much the acromion had dropped from its proper position, I found that it had not dropped at all, showing that it could not have been fractured. On manipulation, I got obscure crepitus which I succeeded in localizing at a point within half an inch or so from the junction of the clavicle and the acromion so that we must modify the diagnosis and say that the case is one of fracture of the acromial end of the clavicle. You will ask what is the necessity of making such an accurate diagnosis. Because a corresponding accuracy of treatment is necessary. You must know what part is injured in order to know in what position to place the shoulder. If the clavicle is fractured, you must push the shoulder upward, outward and backward. If the acromion is fractured you must rather raise the arm in order to push up the broken piece.

On inspecting the shoulder, you notice very little deformity. Apparently, the fracture is so near the joint that the outer end of the clavicle is held by the coracoclavicular ligament and thus there cannot be much displacement. All that is necessary, then, is to hold the parts quiet by a simple retentive dressing. We have met this indication by part of the Sayre adhesive dressing passed around the arm and body, and, over this, a roller bandage has been applied and the hand is kept in a sling. I show you this case, not to call attention to any error on the part of another, for the original dressings were sufficient to keep the parts in place, but to emphasize the importance of making an exact diagnosis and to show you a comparatively rare and fortunate location of a fracture.

I also wish to call your attention to an interesting phenomenon and one which has here, something of a diagnostic value. Over the anterior and upper part of the chest you see an ecchymosis, not fresh as it would be from a recent superficial contusion, but showing the faded colors of an old extravasation of blood in which chemical changes have occurred. This is a common appearance after fracture of any bone, the blood working its way to the surface after several hours or after two or three days, according to the distance of the bone from the skin. Now, if the fracture had been one of the acromion process, the ecchymosis would be seen over the peak of the shoulder and posteriorly on account of gravitation while the patient is lying on the back. The blood could scarcely penetrate the deltoid muscle, so that the discoloration of the anterior part of the chest and the absence of such discoloration from the back and top of the shoulder are contradictory to the diagnosis of fracture of the acromion. Ecchymosis is practically of little value in the immediate diagnosis of fractures since it can not be seen till after the injury should have been located and the dressing applied.

This patient is a victim of the boom at Niagara Falls, having been injured while at work in the tunnel by a large stone falling on his thigh. The femur was broken in two places, just above the knee and ten or twelve centimeters higher. It is now six weeks after the accident and the case is brought before you as an illustration of the results of treatment. The patient is a young man of twenty-four, previously healthy and we should expect that the necessity for confinement and rest in bed has passed away. I wish, however, to manipulate the limb to determine the degree of consolidation and to make sure that it is sufficient to warrant leaving off the dressing. As I grasp the bone through the soft tissues, it seems fully twice as thick as on the opposite side, this increase in size being due to the callus which was thrown out after the double injury and which has been more or less organized into bone. In course of time, most if not all of this enlargement will probably be absorbed. As I rotate the leg at the knee, the trochanter moves in correspondence as it should if the femur is again one piece. Grasping the femur with both hands, I am

unable to make any motion in the middle, either by rotating it or by trying to bend the bone.

I also wish to measure the leg to note the shortening, a moderate degree of which is to be expected after any fracture of the femur and especially after a double fracture. We must be careful to get the legs perfectly parallel, having the pubes, umbilicus and internal malleoli in the same line. Measuring from the anterior superior spine of the ilium to the internal malleolus of the sound side first, I find the distance to be 33¼ inches. I make it a rule never to look at the tape-line until after I have determined by the sense of touch the exact points between which to stretch the line. In this way I avoid any possible self-deception. I find the measurement of the injured side to be thirty-three inches. By the dictum of the American Medical Association, a shortening of three-quarters of an inch is not a bad result and is quite consistent with the most skillful treatment. With a double fracture, it would not be at all surprising if an inch or an inch and a quarter of shortening had occurred. We must congratulate ourselves on having secured a minimum of it here. This has been obtained only by traction with a relatively very heavy weight, at first, of twenty pounds. Although consolidation has taken place, it would not be wise to allow the patient to get up and exert pressure on the bone, since some further shortening is still possible, but he can be relieved of the irksomeness of the bandage. His leg will be rested on a pillow and passive motion will be used so as to allow the knee to recover its mobility.

This case is a simple form of hare-lip occurring in a child aged sixteen months. The explanation of the trouble is easy if we understand a little about embryology. The two halves of the face are developed separately and grow toward each other. A cleft in the lip, like a cleft in the palate, indicates a failure of complete fusion of originally separate parts. In certain animals, the hare especially, such a failure is, so to speak, intentional. In the human being it constitutes an abnormality and, on account of the disfigurement, it is one which the surgeon is often called upon to remedy. The failure to fuse may be present in any degree from a slight notch in the lip to a fissue extending up the side of the nose and backward through the palate to the pharynx. Such extreme cases of combined fissure of the face and palate are almost beyond the full restorative power of surgery. Hare-lip, as well as cleft palate, is almost never found exactly in the median line. Many mothers try to explain its occurrence by recounting some fright which they had late in pregnancy. The deformity, however, dates back to the fifth or sixth week of fœtal life so that, without reference to the general possibility of maternal impressions affecting the child, such an explanation can not hold good in most cases of hare-lip and cleft palate.

The operation for the relief of hare-lip is in theory a simple one. It consists in freshening the edges of the cleft and sewing them together. In practice, however, this may be a very difficult plastic operation. I usually tell the parents that, although I can bring together the edges in any case of hare-lip, I can not ensure the union of the wound for the simple reason that the child in fretting and crying, may tear the stitches loose. We try to avoid this accident by reinforcing our stitches. Sometimes hare-lip pins are used to transfix the parts and a silk ligature is wound in figure-of-eight fashion over the ends of the pins. Sometimes sutures are passed through the cheeks and held by lead discs. Often the wound is dressed with iodoform and protected with collodion, and some rely on the stiffening of the collodion to prevent the child from moving the lip in crying. But the discharge from the nostrils or the saliva or food may loosen the collodion so that this dressing often fails.

Several operations have been devised to relieve different forms of hare-lip, all following the same general principle but differing in detail. For instance, we may cut parallel to one edge of the cleft, nearly to the margin of the lip and then turn inward so as to leave a tag of tissue at the lower part of the cleft. On the other side we do no remove as much tissue but we make a similar angle to aid in coöplating the parts.

In this case the defect is so slight, not extending to the nostril, that it is necessary only to freshen the margin of the cleft.

Our Continental friends have a way of operating on hare-lip without giving an

anæsthetic. I do not consider it any advantage to avoid the theoretical evil of giving an anæsthetic by allowing the child to suffer so much pain as the operaton necessitates.

The alveolar border is not exactly regular, but is nearly so and it requires no operative interference. The teeth are not quite regular and one is turned half way round and will require the attention of a good dentist at some future time. At present I forbear to do anything but rectify the labial fissure, lest with this rather feeble child I do too much, and perhaps totally fail. What remains to be done beyond this may be better done a little later.

COMMUNICATIONS.

CEREBRAL SYPHILIS.*

Dr. J. E. HAYS.

I have prepared this paper with the object of presenting in as condensed form as possible, the history of two cases of cerebral syphilis that have lately come under my care.

An interesting feature of each case is the wide interval of apparent cure between the disappearance of the secondary manifestations and the beginning of the cerebral disturbance. As both cases were accompanied by paralysis which was hemiplegic in character, they forcibly illustrate the danger and serious effects that may possibly result from the product of a syphilitic dyscrasia.

Case I. Mr. P., aged forty-six; an Englishman. I was called to see this case February 1st, 1892, and found him with complete paralysis of the left arm and leg; his power of speech was slightly impaired, and there was also some difficulty in swallowing. The attack had been sudden and was not attended by any loss of consciousness. Prior to the loss of power on left side, there had been no complaint of pain in the head; no vertigo; no staggering or uncertain gait; in fact, no symptom that would indicate an approaching paralysis. His general health for many years previous to the attack had been excellent; his habits had been regular; he used nothing alcoholic nor tobacco in any form; his occupation was that of foreman in a large manufacturing establishment in this city.

A careful inquiry into the previous history for something that would throw light on the cause of the hemiplegia revealed the following: At the age of twenty-six he contracted syphilis. The primary sore was cauterized and internal treatment, the nature of which he did not know, continuously administered for several months. Following the initial lesion had been some glandular enlargements, slight falling out of hair, but no eruptions on the face or body. From the history it seemed to me that there could be very little doubt in regard to the nature of the lesion that had occasioned his paralysis, and he was at once given iodide of potash in gradually increasing doses. For two months his improvement was very satisfactory; in this time he had sufficiently recovered the use of his leg to enable him to walk about; but his arm was still almost powerless. He looked, ate, and slept well. The amount of iodide of potassium had been increased to forty grains three times a day. A larger amount of the remedy was badly borne, and it was decided to continue this dose. On the sixth of April he developed a severe pleurisy on the left side; this was attributable to an exposure immediately after taking a Turkish bath. Dr. Bailey saw the case with me a few times during this attack; an effusion of moderate amount took place in the pleural sac, but disappeared under treatment in a few days. On April 20th, pleurisy occurred on the right side; this was also attended by effusion, not as great, however, in amount, as that had been on the left side. Shortly after the disappearance of this, he was seized with a violent bronchitis which so closely simulated tubercular phthisis that for a while it was calculated to deceive, especially as the attack was attended by persistent cough, profuse yellowish expectorations, rapid loss of color and strength, night sweats and a fever somewhat hectic

* Read before Medico-Chirurgical Society, Louisville, Ky., Dec. 9, 1892.

in character. His treatment at this time was mainly the syrup of hydriodic acid, a generous allowance of port wine, and plenty of liquid food. Later he was also given the compound syrup of the hypophosphites. His improvement for several weeks was very slow; the chest symptoms did not entirely disappear until September. Since then, under the use of iodides and Faradism, he has made considerable progress towards regaining the use and strength of the paralyzed limbs. A few weeks ago he resumed his work at the factory.

Case II. Mr. J., aged forty-two ; carpenter. This is a somewhat similar case to the one just reported. I saw him shortly after the attack of hemiplegia, and elicited the following facts : Eighteen years ago he had an indurated sore on the penis; secondary manifestations followed, but slight. He did not remember the duration of the treatment, but said that he continued to take medicine until the physician pronounced him cured. Since abandoning the treatment there had been no further outbreak on his skin; he married and has a son living, aged fifteen, whose upper central incisors on examination showed the characteristic malformation of inherited syphilis, as described by Hutchinson. The patient's health, notwithstanding bad hygienic surroundings and habits, had remained in good general condition until last May. At this time symptoms of vertigo made their appearance, and soon became well marked and persistent. In walking he felt an almost continual tendency to pitch forward and to the left side; his mind frequently became confused and his memory was poor. On account of the dizziness he was compelled to quit his work. The physician to whom he applied for relief, overlooking the true cause of the trouble, and thinking that the vertigo was stomachal in origin, advised him to quit the use of stimulants to which he was somewhat addicted, live on a spare diet, and keep his bowels freely moved by the daily use of a laxative water, the Carlsbad preferred. This failed to give relief. On the 2nd day of June left hemiplegia occurred; complete loss of motion but no lessening of sensation of the arm and leg. There was no loss of consciousness, slight if any impairment of his intellectual powers; he could articulate distinctly, but talked slowly and with some effort. There was no diminution in the acuteness of his vision.

The history given by the patient having established such a clear connection between syphilis and his present condition, he was at once given large doses of iodide of potassium. This was increased until he received as the maximum amount 180 grains daily. In addition to this he has at intervals also received a small or "tonic" dose of the bichloride of mercury, and Huxham's tincture of cinchona. His progress toward recovery has been rapid and uninterrupted; he has gained about twenty pounds in weight; feels well and can easily walk several squares without a cane. He has, however, regained but little use of the arm. He will probably never be able to resume his accustomed work.

The treatment of these cases presents no novelty. Clinical observation has long taught us that iodide of potassium is the sovereign remedy for bringing about an absorption of these products of syphilis. Its effect on gummata is well known and positive. While the mercurial preparations properly administered may aid, they do not approach in effectiveness the iodine compounds. Mercury, however, in the early stages of the disease has the supremacy. We very justly ascribe to it a direct and destroying effect on the virus of syphilis, whatever that virus may be. This being true, the opinion very generally prevails that it is only after a most careful, intelligent and prolonged treatment by mercury, that a physician can promise exemption from the later or so-called tertiary manifestations. In regard to a disease so grave in its possible results as syphilis, this fact ought not to be forgotten.

Black Eye.

There is nothing to compare with a tincture or a strong infusion of capsicum annuum, mixed with an equal bulk of mucilage or gum arabic, and with the addition of a few drops of glycerine. This should be painted over all the bruised surface with a camel's hair pencil, and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, the treatment will invariably prevent the blackening of the bruised tissue. The same remedy has no equal in rheumatic, sore, or stiff neck.—*Med. Times.*

SARCOMA OF THE BREAST AT THE AGE OF SIXTEEN YEARS: OVARIAN CYST.*

A. M. CARTLEDGE, M. D.

I have two specimens to present, one of which I think is of special interest. A short time ago I saw in consultation a girl sixteen years of age, with the history that six months before there was observed in the right mammary gland a tumor the size of an ordinary marble, about midway between the nipple and the axilla.

Her physician, on account of the girl's age, kept her under observation for a while, but in the last month he noticed very rapid growth of this tumor, and at the last examination, a week or ten days ago, he observed one enlarged gland in the axilla. He also observed at the last examination that the superficial veins over this tumor were very much enlarged. The girl complained of lacinating pain. As I said she was only sixteen years of age, and apparently very robust in health.

On examination a tumor of a distinctly movable character, the size of a goose egg, could be felt in the breast indicated; it seemed as if you could grasp it and it could be moved separate from the gland substance proper, and it was slightly lobulated. Below this tumor was a distinct second nodulation with a groove between the two. It seemed to correspond, as it took a more backward direction, to the lymphatic vessels going from the breast to the axillary space. At this examination I only felt one enlarged lymphatic gland in the axillary region.

As to the question of diagnosis in this case, of course it would present some features of interest. Here we had a girl whose age was decidedly against malignant tumor of the mammary gland, with a clinical history of six months duration and of pain; enlargement of the superficial blood vessels and enlargement of the lymphatics in the axillary. From the history of the case I had no hesitancy in pronouncing it sarcoma. It presented every evidence of malignant growth and the age of the patient excluded carcinoma. There was no history of trauma.

Believing that all neoplasms of the breast, without exception, should be subjected to complete extirpation and cleaning out of the axillary space, I advised this and the operation was done three days ago. The entire breast was removed, and you will observe that the tumor is distinctly encapsulated, entirely separate from the breast substance itself. The glands removed were simply the lymphatics. A thorough microscopical examination has not yet been made of the tumor.

Certainly the growth, as it appears since its removal, more than ever bears out the opinion that was conceived of it beforehand, and it has every evidence of a sarcomatous growth. The tumor presents some appearance of a fibroma superficially, but just beneath it we have this clear metastasis, with enlarged lymphatics showing its malignant character. The examination thus far has been a very rough one, the gentleman simply making a section without coloring it. He believed it would prove to be an interstitial mammitis of the breast, probably inflammatory. But the encapsulated condition indicates clearly to me that it is a sarcomatous growth, or a fibroma that has undergone sarcomatous degeneration, which we know is so common in this location. It does not present many features of an adenoma, but even this should be subjected to the same treatment.

The age of the patient is one of the most peculiar features. One gentleman, who has written on this subject, claims that the earliest age in any case of sarcoma occuring in the female mammary glands is eighteen years. However, there has been one case reported in this city at the age of fourteen. I am certain that all such growths will be considered malignant by me from a clinical standpoint.

Case 2. This specimen is of greater interest to the general practitioner than to surgeons. My attention was called to the case while visiting another patient in the same house. The lady said she had been a sufferer with dyspepsia for a long time; that she had to live principally on fluids, etc. I thought I recognized in her face the peculiar expression indicating ovarian disease. I made a careful examination and found a clear case of cyst of the ovary.

*Re d before Medico-Chirurgical Society, Louisville, Ky., Dec. 9, 1892.

Operation was performed to-day; tumor removed weighing between thirty and fifty pounds; there were no adhesions; patient bore the operation well; when she was taken off the table pulse was 80; she had no shock and nothing to indicate further trouble. This case is interesting from the fact that the woman had never complained of anything except dyspepsia and there was nothing to indicate presence of the cyst, except the enlargement which might have been due to other causes. The patient never suffered any severe pain or inconvenience from the presence of the tumor.

CLINICAL AND EXPERIMENTAL CONTRIBUTION TO THE TREATMENT WITH CREASOTE OF PULMONARY TUBERCULOSIS.*

Dr. ALBU, in Berlin.

In the Moabit Hospital in Berlin, creasote has been employed in constantly increasing doses since June, 1887, and especially latterly since the publication of Dr. Sommerbrod, in Oct. 1891, has the remedy been employed in many cases of various stages of the disease. The remedy was administered in pill form of 0.05 grammes each, and the average patient reached in the course of two weeks sixty pills per day. Many patients took 5,000 such pills in the course of a few months, and some even 9,000 pills, equal to 450 gramm (nearly a pint) of the creasote. No especial difficulty was found in the administration of these immense doses.

While Sommerbrod in the beginning recommended creasote only as a very useful remedy in the symptomatic treatment of phthisis, of late he urged it as a successful remedy against tuberculosis, by which in fact severe forms with cavities could be permanently healed. In a pamphlet of recent date he recommends creasote even as specific for tuberculosis, his recommendations being based upon clinical experience.

In view of this, experimental researches were made at the Moabit Hospital, and these, as well as the experimental investigations of P. Guttmann, Coze and Simon, Sormani and Pellacani, Schüller and finally of Cornet, proved negative in the great majority of cases.

The author points out the importance of appreciating the effects really due to the remedy, in view of the natural variations in the clinical course of pulmonary phthisis, and finds that in a critical inquiry as to its effect upon the chief symptom which reflects the real disease process, *the fever*, the remedy is without any effect whatever, as it is also upon the etiological factor of the disease. No material, lasting change in the presence of tubercle bacilli in the expectoration has been observed in any case; and under the continued administration of large doses of creasote the development of cavities, pneumothorax, amyloid degeneration, etc., has been observed; even in the early stages, the disease has frequently had a rapid course despite the treatment. On the other hand, the accomplished improvements were not greater than those secured under a purely hygienic-dietetic management—a conclusion which is based upon a great number of comparative investigations.

Under the favorable influence of the latter, improvement in the subjective and objective symptoms has been frequently observed in a short time; as for instance in a porter who under three different methods of treatment—tuberculin injections, hygienic-dietetic management, and large doses of creasote, each time gained from eight to twelve pounds in weight in the course of eight weeks in the hospital.

Creasote appeared to act favorably in many cases only through its influence upon the expectoration and digestion.

In common with Th. Weyl, the author demonstrated that the introduction of large doses of creasote into the blood is without influence upon the tubercular process in the lungs; the sputum from such cases having been found fully virulent for animals. Inoculation of such sputum into the anterior chamber of the rabbit's eye was followed by typical tuberculosis, and in all test animals tubercle bacilli were found in great numbers in the iris and cornea.

Intraperitoneal injections upon guinea pigs of sputum from patients who had taken many thousands of creasote pills, were followed by general, miliary tuber-

*Translated from the *Deutsche Medicinische Wochenschrift* for Dec. 15, 1892.

culosis, the latter being confirmed by bacteriological examination.

The results of the investigations which will hereafter be reported in detail in the *Zeitschrift fur Hygiene und Infections-Krankheiten* show beyond doubt, as do also the clinical results witnessed, that creasote is without influence upon the tubercle bacilli, and upon the specific tubercular process in the lungs.

Similar results with the same conclusions were reached in this country by Dr. Karl von Ruck, of Asheville, N. C., who made his investigations in his private institution for phthisical patients, and who speaks of his present employment of creasote in a recent paper as follows: "Creasote is used only for its influence in overcoming fermentative processes in the alimentary canal, when less unpleasant means fail to succeed, and for its stimulating effect upon the mucous surfaces.

I have become absolutely satisfied that creasote has no specific effect upon the tubercular process and have demonstrated that inoculations with tubercle bacilli of blood serum from a patient absolutely saturated with creasote by large and long continued dosage show luxuriant growths of the germs, not differing from cultures in serum where creasote had not been given, also that the germs from such patient's sputum produce virulent cultures."—

SOCIETY REPORTS.

THE MEDICAL-CHIRURGICAL SOCIETY OF LOUISVILLE.

Stated Meeting of December 9th, 1892.

The President, Dr. F. C. Simpson, in the chair.

URTICARIA.

Dr. D. T. Smith : This young man has been in excellent health since childhood, with the exception that he had spasms for a short time during infancy, such as any child might have. These spasms never occurred after he was two years old. He had no other form of illness until he was fifteen years of age, when he had an attack of malarial fever, which lasted two weeks, and after that an attack of typhoid fever.

Before the attack of typhoid fever he felt at one time an itching over the right orbit, and reaching up his hand to ascertain what it was, he felt a tumor about the size of a wine grape projecting. That tumor disappeared, then it came again, this time slightly larger than before, and immediately over the left orbit ; disappearing and again appearing in his ear, then on his cheek, then on his lip, once inside of his mouth ; two or three times on the back of his head, and when I first saw him about four weeks ago, the tumor was disappearing under the right eye.

These tumors are rather soft, except in the middle where there is a little more resistance to be felt. Four evenings ago he felt a twinge just over his right eye, and reaching up his hand felt the tumor coming there. I saw it the next morning. It had then spread some and was projecting probably twice as much as you see now. It comes and goes very quickly—he will simply feel a little itching, put his finger to the spot and the tumor is there. There is no sore upon his skin ; however, there is one little place which does not change, probably a mole, seemingly a little thickening of the skin forming a small lump. He compares these tumors as they pass away to the condition as observed in this spot that does not change.

DISCUSSION.

Dr. Wm. Cheatman : It looks to me more like urticaria than anything else.

Dr. W. L. Rodman : How long do these so-called tumors remain out—that is for what length of time can they be detected from external appearance ?

Dr. D. T. Smith : Sometimes two or three days ; at other times they will appear and disappear in a very short time. Probably the average time is about two days in one place.

Dr. A. M. Cartledge : It strikes me that it is a misnomer to call this condition a tumor. I do not think it can be properly classed as a tumor. When Dr. Smith first described it, I thought it was probably a blood extravasation. I have seen several cases of subcutaneous hem-

orrhage of the scalp which had some resemblance to this case. Since making an examination, however, I think it is neurotic. The case more properly comes under nervous irritation, or a vaso motor paresis.

Dr. A. M. Vance: I believe the trouble is urticaria; I do not see what else it can be; it looks and feels to me like urticaria.

Dr. W. L. Rodman: I am fully satisfied that these swellings are not tumors. The whole history of the case clearly excludes all possibility of tumors or neoplasms. No tumor could grow in so short a time, and disappear so rapidly. I take the view that Dr. Vance does, and am satisfied that it is a disease of the skin.

Dr. D. T. Smith: I agree in the main with what Dr. Cartledge has said: He stated, I believe, that it is vaso motor paresis. I think this enlargement is due to paralysis of the nerves controlling the capillaries and arterioles, allowing an accumulation of fluid in them, mostly blood. At first there is a little discoloration, and finally a very slight ecchymosis, the skin seeming to be involved to that extent. And yet this tumor has appeared once inside of the mouth. While the origin of the trouble is in the nerve control, yet I think it is remotely related to urticaria. Cases of this kind must be very rare, as there is so little record of them. I shall look further and it may be that I shall find some reflex cause. There is no organic change in the brain as shown by the migratory character of the tumor and the trouble must be functional. The reflex may be in the stomach, but I have not been able to find it. I have not examined the nose; however, there has been no complaint. The patient has been in perfect health, and I have been unable to find the least trace of history of any other trouble. I must still denominate this a tumor, though, of course, I am aware it has nothing of the nature of a neoplasm.

Dr. A. M. Cartledge reported a case of Mammary Sarcoma in a Girl of Sixteen Years; Also a Case of Ovarian Cyst. (Page 88.)

DISCUSSION.

Dr. W. L. Rodman: I agree with Dr. Cartledge in what he says concerning his first specimen; I am satisfied from the appearance of the growth and its clinical history there can be doubt as to its malignancy, and, being satisfied of this—whether it be carcinoma or sarcoma—the proper procedure was complete removal.

According to S. W. Gross, the youngest case in which carcinoma of the mammary gland has occurred was twenty-one years. This was in the practice of Henry. His statistics show the youngest case of sarcoma of the mammæ to have been fourteen years of age. One case has been reported to this Society where the patient was not even thirteen years old. I think there is very little doubt about the specimen presented being a sarcoma, and the Doctor did the proper operation, removing the entire breast and cleaning out the axilla.

In reference to glandular enlargements in these cases, I disagree with Dr. Cartledge. While the rule is not to have involvement of the axillary glands in sarcomata of the breast, still there are other exceptions besides the case under discussion. Gross reports several I know. We also know that according to Butlin, sarcomas of glandular organs, especially the tonsil, testicle and lymphatic glands, are more likely to be followed by enlargement of the lymphatic glands than even carcinoma in like situations. The old idea that sarcoma never causes glandular involvement must pass away.

Dr. A. M. Vance: I agree with what has been said, and believe the condition of this tumor was such as to justify complete removal of the breast.

I would like to put on record a case I saw this summer: A very intelligent lady forty-five years of age, consulted me in regard to a tumor of the breast, which was hard and painful at the time. I gave the usual stereotyped opinion that all tumors of the breast in a woman over thirty, ought to be removed, and advised immediate removal. Operation was refused, and I did not see the patient for about a a month, when she again called upon me I made a second examination of the tumor and it was then about half the size it was at the first examination. I will say, however, on the occasion of her first visit to me I advised the removal of corsets, which she had probably been wearing tightly laced, as she was quite a fleshy woman. At the second examination, notwithstanding the fact that the tumor had considerably decreased in size, I still advised its removal. At that time she told me that

she attributed the disappearance of the tumor to the influence of prayer. In another month she returned and the tumor had entirely disappeared, and she wanted me to make a statement that I had examined her on a certain date, finding cancer of the breast; had examined her on another date and found the cancer about half of the size, and again on such and such a date when the cancer had totally disappeared.

This is the first case in my experience where tumor of the breast has disappeared. Dr. Hays will remember another case where the tumor was not in the breast but in the pectoral muscle just anterior of the axillary space. In this case both Dr. Hays and myself thought it was cancer and advised early removal. This patient consulted some "Faith Doctor," and the tumor entirely disappeared.

Dr. W. O. Roberts: I am sorry that I did not hear Dr. Cartledge's report of the tumor of the breast. Of course the younger the subject the more apt it is to be sarcoma. We find many cases of sarcoma of the breast that have gone on for some time, and others which have grown very rapidly with no glandular enlargement in the axilla. I remember one case not very long ago where there was very rapid growth, so rapid in fact, that the physician in attendance took it to be an abscess of the breast and lanced it, evacuating nothing but blood. I afterward removed the growth and found no enlargement of the glands in the axilla. The character of the growth of course influences to a great extent the enlargement of the glands. We have glandular enlargement nearly always in melanotic sarcoma, which goes through the system not only through the blood, but through the lymphatics; we have this sometimes in other forms of sarcoma, but chiefly in the melanotic.

In this connection I would like to refer to the case of melanotic tumor removed from the groin of a very fleshy woman, which I reported some time ago, Dr. Rodman assisting in the operation. Within the last month there has been a recurrence of the disease, there are several tumors on the body but not at the point from which the original growth was removed.

Referring to what Dr. Cartledge has said about the ovarian cyst, I recently reported a case where I operated upon an old umbilical hernia, the patient being an exceedingly fleshy woman and had not suspected ovarian tumor, nor had I, my attention having been directed to the irreducible umbilical hernia. During the operation for hernia the patient had a very severe vomiting spell, a great deal of the intestines protruding through the opening, and I detected a large ovarian tumor, which was promptly removed. My experience is that ovarian tumors are very frequently run across, just as in the case reported by Dr. Cartledge, by accident.

Dr. D. T. Smith: Dr. Douglass Morton used to insist upon a point in reference to removal of the glands in the axilla that seems to me entitled to much weight, that is the danger of recurrence in the axilla was so limited that it did not justify removal of the glands. I notice most leading surgeons, however, are still urging the course recommended by Dr. Cartledge—the removal of all the glands of the axilla at the time the breast is removed, making a complete operation. If it is true that in only three per cent. of the cases cancer returns in the axilla, then it does seem to me that the condition hardly warrants such a complete operation. I saw some time ago a report by Bigelow, I think, of Boston, where he had collected all the cases of cancer of the breast he could find, and only three per cent. of them had recurred in the axilla, all the rest recurring in the scar. In view of this, I think the complete removal of the axillary glands in all cases to prevent recurrence in so small a percentage, is hardly justifiable. I would like to know if any of the members present have any statistics on the subject.

Dr. W. L. Rodman: The best results which have been obtained in the operative treatment of malignant disease of the breast is by a free incision, removing all the glands, and also invading the axilla and removing all enlarged glands and other suspicious tissue. This done we get results second only to operations for the removal of carcinoma of the lip. Dennis' statistics made from a large number of cases of malignant disease of the breast treated by free incision are so good as to approximate in results operations for epithelioma of the lip, the best in the field of operative surgery for malignant disease.

Dr. A. M. Vance: In operations of this character at the Johns-Hopkins Hospital, I observed, while there recently, that they not only cleaned out all the lymphatic glands of the axilla, but also removed all the pectoral muscle on the side affected. Dr. Halstead claims that this is the only way you can hope to entirely remove the cancer. I believe that the wider you go the better it will be.

Dr. A. M. Cartledge: I have very little to say in closing. One point in regard to lymphatic enlargements in sarcoma, carcinoma and other tumors of the breast—there is something in what Dr. Smith says in that it gives a suggestion as to the causation of lymphatic enlargements in growths of the mammary glands. I am a firm believer that originally and primarily many tumors, and very much of the lymphatic enlargement of the axilla, are inflammatory in character from the absorption of pyogenic micro-organisms rather than from metastasis.

In regard to cleaning out the axilla, I think the best way to prove to Dr. Smith that this should be done, is that twenty-five years ago the percentage of recurrence in removal of cancers of the breast was so great, that many of the best surgeons advised against the operation. Later they removed the cancer and the lymphatic glands, and their percentage of recoveries was still greater. Now they go still further than this and remove the pectoral muscles and the results are more satisfactory. I believe that the more structures you remove, within reason, the better the result will be.

Dr. D. T. Smith: It still seems to me hardly necessary or justifiable to remove the pectoral muscles and lymphatic glands in these cases, considering the small percentage of recurrence in the axillary region. In the older operations spoken of by Dr. Cartledge, I am forced to believe that if there had been more complete removal of the cancer itself, the percentage of recurrence would have been much less.

Dr. A. M. Cartledge: If you remove a cancer of the breast ever so thoroughly and then slit up the enlarged lymphatic glands and submit them to a microscopical examination, usually cancerous elements will be found there.

Dr. J. B. Hays read a paper on "Cerebral Syphilis." (Page 86).

DISCUSSION.

Dr. A. M. Vance: I only want to speak of one thing that has been brought up by the paper. My experience proves to me the importance of mercurial treatment in these cases just as much as in the primary stage. I believe that a patient suffering from syphilitic trouble must take about so much mercury before he can be entirely relieved. Though iodide of potassium might bring about the same results, it is a question whether such results would be permanent. While we all know the good effects of iodide of potassium in these cases, it is my opinion that if mercury were given in proper doses from the beginning of the first symptoms, the results would be better and more permanent.

Dr. A. M. Cartledge: I would like to ask Dr. Hays how much mercury he would advise in these cases, and the dose given in these cases, and the cases referred to.

Dr. J. B. Hays: I believe the dose has to be regulated as to quantity by each individual case. I gave in the two cases reported one-fiftieth of a grain.

Dr. C. W. Kelly: I have never given mercury in any stage of syphilis; I much prefer iodide of potassium, and believe this will produce much more satisfactory and more certain results.

Dr. W. O. Roberts: I think in these cases we should push iodide of potassium to the extent that the patient is able to bear it. I had a case of brain syphilis some time ago with Dr. Bodine in which we steadily increased the quantity of iodide until the patient took one and one-half ounces per day—one-half ounce at a dose three times a day. This quantity produced no trouble in the alimentary tract, but he had most excessive duresis, passing enormus quantities of water during the time he was taking these large doses of iodide; it was given very largely diluted. This treatment cleared up the brain entirely; the man is now seemingly in perfect health; has since married and has two children.

Dr. Wm. Cheatham: It is my practice to treat syphilis, in either the first, second or third stage, with a combination of iodide of potassium and mercury. I believe that in brain syphilis mercury given by inunction will produce better results than when given by the stomach.

Dr. A. M. Cartledge: I am satisfied in my own mind that while we all have about

the same things to use in the treatment of syphilis in the various stages, first, second or third, the remedies, mercury and iodide of potassium being the chief, the manner in which we use them has a great deal to do with whether we have success or failure. In those cases where we have deposits pressing upon delicate structures, where it is desirable to remove them very quickly, such as the cases referred to by the essayist, I believe that we get the most rapid results by confining ourselves to the one remedy, iodide of potassium. I think mercury is a valuable agent in syphilis, but there is a difference in the action of these two agents. One point that I desire to call especial attention to is this, that at the same time we are administering iodide of potassium, we should also establish systemic drainage; this can be accomplished by two-grain doses of calomel. I also think quinine may be given in these cases with a great deal of benefit.

Dr. S. C. Dabney: I see a good many cases of syphilis in the tertiary stage, and occasionally meet with the secondary form in diseases of the eye, nose and throat, less often in the ear. In these cases I have used mixed treatment with good results. I will mention as a fact of some interest a case of syphilis I saw recently in which there was paralysis of one of the muscles of the eye within four months after the first inoculation. The occular paralysis developed earlier and more rapidly in this case than it usually does. Disorders of the occular muscles and of the pupils are common symptoms in brain syphilis, but as they did not occur in the cases reported by Dr. Hays, it would probably not be in place to discuss them here.

Dr. D. T. Smith: In my experience I have have only seen one case of brain syphilis; this patient was about thirty-six years of age, a carpenter by trade. Diagnosis was made of cerebral syphilis, which was first noticed by his staggering walk. I had him under observation for nearly three years and think there could have been no doubt as to the diagnosis. He was given large doses of iodide of potassium, probably up to twenty grains three times a day; I also pushed corrosive sublimate up to one-sixteenth of a grain. He went back to his work under my treatment. He fell from a house at one time being pretty badly crippled, which may have had something to do with aggravating the trouble. After that he grew better, then worse and finally became insane and was sent to the asylum, where he died. I believe in these cases of cerebral trouble we may very often be mistaken in the diagnosis, as to whether there is a syphilitic lesion or not.

Dr. C. Skinner: In treating syphilitic cases, I give mercury by inunction preference in the second stage; iodide of potassium in the third and nothing in the first. My reason for giving nothing in the first stage is to be positive about the diagnosis. I use mercury in the second stage by inunction which I think is the best way to give it, keeping the bowels open and saving the stomach. In the third stage I give large doses of iodide of potassium, gradually increasing. I will mention a case of cerebral syphilis in which a man failed to carry out directions, which is just in line with Dr. Hays' paper. I treated this man's wife in an abortion; some time afterward I attended her in a second abortion; then she came to me in her third pregnancy and wanted me to bring about an abortion to avoid carrying the child to full term. Of course I told her I could not do this, but would try and tide her over the critical period. I put her on treatment with bichloride of mercury, in one-thirtieth grain doses three times per day, through the whole period of gestation. She then left the city; returning some time after she again become pregnant, and I treated her in the same way through that period of gestation; a perfectly healthy child was born and now shows no signs whatever of syphilis; the child is now five years old. I give the history of the man: At that time he gave me the history of having contracted syphilis twenty years before. This had apparently been cured, no further symptoms having developed until about two and one-half years ago, when he showed signs of syphilis in his walk, loss of memory, etc.; he said he could not remember anything. I recognized what I thought to be a manifestation of return of the trouble, and put him on iodide of potassium. He improved very rapidly at first, so much that he discontinued the use of iodide and passed out of my notice for a while. Finally he came back to me with a return of the trouble, and I again gave him iodide of potassium, gradually increasing the dose. He again improved and left off the medicine

entirely. I was hurriedly called to his house some time afterward, and found the man in convulsions, and he died in about four or five hours. His wife told me that he had not been taking medicine of any kind for about six months. I have since learned that he discontinued the use of iodide on the statement of the druggist from whom he purchased the drug, that he was consuming a dangerous quantity less, (I think he was taking about four drachms three times per day), and if he did not quit it would kill him.

Dr. J. M. Ray: I have seen a large number of cases of ulceration of the mucous membrane of the upper respiratory passages from syphilis, and must say that I believe iodide of potassium does more good than anything else. It has been my practice to give mercury and iodide separately in these cases. I give iodide for an express purpose, and continue giving it until the desired results are obtained; until the ulcerated surfaces heal up. I continue the iodide as long as I have any local lesion present, then give mercury. I will make here a brief report of an interesting case I saw some time ago. It was a case of syphilis in which there was ulceration of the mucous membrane of the nose with sloughing of the turbinated, and, at the same time, a chancre on the penis.

Dr. J. E. Hays: I have had only a few cases of the kind; I believe two in addition to the ones reported, since I have been practicing medicine. I have never given mercury a trial in any tertiary lesion, excepting in the last case referred to in the paper. I must say, however, that iodide of potassium has never failed in a single instance. I believe that is the best known remedy in removing syphilitic infiltrations. I simply gave mercury in this case as an experiment, not having very much faith in its efficiency. I believe, like some authorities, that if mercury would destroy the germ of syphilis, if given early, we could do away with all these latter manifestations, that is, the so-called tertiary symptoms.

CORRESPONDENCE.

REVIVAL OF "HEATONISM"; HERNIAL INSTITUTES AND SUBCUTANEOUS INJECTION FOR HERNIA.

Editor Medical and Surgical Reporter:—We have recently seen through an exchange, (the New York *Medical Journal*, Jan. 7th, 1893,) that "Heatonism" and rank, downright quackery has again invaded the domain of Hernial Therapeutics. This time, however, in a more bold and defiant manner than Heaton ever dreamed of; for he published his wonderful (?) cure in the public press only.

In a nutshell, we are told by Dr. Wm. C. Kloman, of Baltimore, that a new method of treating hernia by the hypodermic injection of irritant solutions has enabled him to cure chronic old herniæ, which have been previously irremediable; that the method was equally successful in both sexes at the Institute (?) and that it was even equal to the cure of strangulated hernia.

Now, the most preposterous assumption, in connection with this so called, new nostrum, is the claim that the wonderful discovery belongs to Dr. Chas. McCanless, of Atlanta, Ga.

This may pass when addressed to those who know little or nothing of hernial literature; but to those of us who have, at least a rudimentary acquaintance with that part of the history of our art, it certainly is news. Nevertheless, in all fairness, to the memory of Boston's notorious hernial quack, we are bound to ask for information and beg to know in what particular the new (?) method differs from Heaton's injections?

Aye! It not only is Heatonism reproduced as far as technique goes; but it smacks further of methods of Heaton inasmuch as it does not state in the article above cited, what is employed as an injection-menstrum.

Is it intended, Koch-like, to withhold the great secret until its utter worthlessness is shown; or, like Prince Mattei, carefully guard its secrecy against the whole world?

It is not generally known that Dr. Heaton, of Boston, was the first who ever employed invagination of the hernial sac, and employed subcutaneous injections along the inguinal canal on a large scale for hernia. And he claimed he could cure all reducible herniæ. He, however, never pretended that he could treat a strangulated hernia in this way. The whole world stood amazed at his wonderful cures (?)—these cases in which a patient after spending a month in bed got up with his hernia remaining out of sight so long as a truss was worn;—which permitted him time enough to write out a testimonial to the doctor. But the old gentleman was finally prevailed upon to write a book or to supply the data for one. This he did; when the whole thing fizzled out and the world, at last, saw the secret, that the mystery was the talisman, and that the whole thing was little else than a piece of downright imposition.

If something has been discovered which will cure certain varieties of hernia, by all means give the world the benefit of it; but don't thrust on us, as a new discovery, a revamped relic of Boston Quackery.

VERITAS.

False Neurasthenia.

Dr. Myrtle writes as follows upon this subject: "We may find symptoms in every respect similar to those of true neurasthenia, and it will take you all your time and patience, as well as tact, to detect the sham from the real. If you look back a bit, you will find that as a child she showed temper; as she grew, she became fitful, hysterical, and given to the sulks; craved for sympathy, and exhibited little or no sympathy for others. On questioning her, she describes her sufferings in forcible language. She can neither eat nor sleep; has not an atom of strength; suffers from the most dreadful pain, most fearful headaches, and frightful spasms, and should you suggest any portion of her body from her head to her heels, as possible exempt from pain; she often resents the insinuation, and declares that is the very part where she suffers most. While she tells you all this in a sort of whine, her features don't show indications of any agony, and, if you watch her, you will find that she overacts her part. Utterly indifferent to the anxiety of parents and friends, or to the trouble and expense she causes, she seemingly finds gratification in watching the unwearied efforts of those around her in doing their best to comfort and help her. While putting on an air of the most abject listlessness while you look at or speak to her, if you talk to her you will learn that she has both eyes and ears; if you assist her in any way she makes herself as helpless as she can—a dead weight. These creatures not only deceive every one around them, but in time they succeed in deceiving themselves. Were it not so, I cannot understand how they continue playing such a sorry game for so long, and with so much strain and fixity of attention, to the exclusion of everything else, as I have seen them do. If we push our inquiries a little further, we generally discover that there is some ocliquity of the moral sense; an ungratified whim or disappointed affection at the bottom."—*Ex.*

Thiol in the Treatment of Burns.

Bidder (*Archives fur Rhinische Chirurige*) says that in treating burns a dressing should be selected which has the following qualities:

(1) Should not require frequent changing.

(2) Relieve pain.

(3) Act as a drying substance.

(4) Harden the new skin.

(5) Hinder the growth of micro-organisms which may have gained entrance to the wounded parts.

The remedy which he has found to possess all the sequalities is *Thiol* which may be used in two forms, liquid and powder.

In burns of the first and second degree, where the blebs are still intact, it is only necessary to brush the burned area with equal parts of liquid thiol and water and cover with wool. At the end of eight days the dressing should be changed, and again re-applied if the blebs have not healed. If the blebs have been ruptured and the corium exposed, all loose skin should be cut away and the burned area carefully cleaned; it should then be brushed with liquid thiol, and powdered with salicylic or boric acid and then with powdered thiol, and the whole covered with vaseline, cotton wool, and bandaged. As a rule, one or two dressings are necessary before the wound has healed.—*Ex.*

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SATURDAY, JANUARY 21ST, 1893.

EDITORIAL.

THE QUARANTINE PROBLEM.

There is always much gained when an important measure reaches the point of serious discussion. There is then hope for common sense conclusions. The discussion of the very important question of a National Quarantine is taking practical form in the halls of our National Congress, and there is an assured promise that a measure, bearing the *ear marks* of practical statesmanship, will be adopted.

The question is not one limited within the corporate lines of any city or the bounds of any one state. It is one broader even than our national domain. It should be treated nationally, distributing the burden of an effective quarantine over the entire people, thus mitigating features that would otherwise prove oppressive to distinct communities.

The difficulty of building efficient barriers against Asiatic cholera is recognized by all scientific men. The inefficiency of local quarantine was thoroughly demonstrated last summer. The quarantine at New York was as efficient as it was possible to make it with inadequate means, imperfect methods and the discreditable jealousies of officials, yet it did not keep the cholera out of New York City. There may be pestilence in politics but there are no politics in pestilence. The opposition of local or city health authorities to those of the Federal quarantine was forcibly illustrated by many little episodes in New York's experience.

A notable fact was, that after the issue of the President's proclamation of national quarantine, no passenger vessel brought a case of cholera to this country. It had the good effect of enforcing more care abroad. It was a warning that crossed the Atlantic—a notice to all passenger carrying steamships that American ports were closed to all vessels carrying pestilence and that they would remain closed until all danger was passed.

There is a provision of our Federal Constitution which imposes upon Congress one of its highest and most sacred duties, that is, to "provide for the common defence and general welfare of the United States." We take it that the general health comes within the provision for the "general welfare," and that this clause gives the power

to establish a system of rigorous, and as far as human measures are possible, effective quarantine.

Dr. Watson, chairman of the International Quarantine Committee, reported that there is not a single port on the North Atlantic coast that is supplied with all the requisite means and methods of modern maritime sanitary science. He gave to Philadelphia the credit of being the best supplied of any port in the country.

Certainly our experiences, modern science, the stimulus of recent menaces of pestilence, have substituted greatly improved for antiquated methods,—importers and reporters to the contrary notwithstanding.

The question of the further improvement of methods and appliances and their efficient application is the one that at present most concerns American communities.

Reason and humanity dictate that we use every device and method approved by science and experience in protecting the public health. Our precautions should be taken before we are confronted by conditions of terrible peril; they will be too late when pestilence has secured a foothold.

A double quarantine is not objectionable. To approach completeness it should be both local and national, with the hearty and vigorous coöperation of all authorities to whom the work may be intrusted.

With a coast as extended as ours, cases will be likely to break through however vigorous the quarantine may be. The Federal authorities will have in their possession the better means and facilities of enforcing essential measures, and will command more respect than can or will local authorities. This respect would the more specially be felt abroad and would further have the good effect of keeping away from our shores a very undesirable class of people. Local resources are often limited, and there is a lack of the implements or plants for adequate and quick disinfection.

The effective guarding of the country against epidemics necessarily involves many risks and hardships. The distress of a stringent quarantine must, in the very nature of things, be seriously felt in all trade and commercial centres. This fact presses the importance of placing the discharge of all the duties of quarantine authority in the hands only of men of the highest character and intelligence; men wise, quick and prompt in the discharge of duty, and that without fear or favor; men above the motive of selfishness, of local or trade jealousies. Neither the interest of the individual, nor of any class of individuals, nor of any one or more communities should be allowed to stand in the way of the "general welfare."

While there exists no reason for undue alarm, neglect to take precautions against the possible visit of an epidemic would be crime. Philadelphia has had three visitations of Asiatic cholera, 1832, 1849, 1866, and has no assurance of exemption in the future. The responsibility vesting upon our local authorities cannot by them be over estimated.

Cleanliness is the one great foe of cholera. Filth has many lurking places and should be routed out and destroyed. Every disease breeding hole and corner should be disinfected. Active practitioners of medicine can exercise a potent influence in this line. They have been made painfully familiar with the causes of many of the terrors with which they have to deal—they know where lurks the fruitful source of pestilence, and, where they will to exercise it, they have an effective voice in its removal. Diligent efforts in the way of sanitation should be made in every city, town and village. In our own city, health, good morals, great trade and commercial interests are involved, and *cleanliness* will do as much,

if not more for us, than quarantine with its embarrassing restrictions.

It has been estimated that a complete quarantine will eliminate seventy per cent. of the probability of the introduction of cholera. Certainly the other thirty per cent. can be prevented by cleanliness and the practice of the best known principles of preventative medical science.

London, the great commercial centre of Europe, toward which tend all the roads of the old world, had but ten deaths from cholera in 1892. In our own city the deaths from diphtheria have doubled and quadrupled that number in one week. Our house cleaning will keep out the foes of public health.

The Senate Bill places the matter of national quarantine where, under existing conditions, it should be. There is no more intelligent, scholarly and scientific a set of men in the country than the medical authorities in the marine service.

The following from the Report of the Senate Committee in epidemic diseases, is worthy of thoughtful reading:

"The committee is satisfied that an effective and uniform system of quarantine regulations vigorously enforced at all ports and places having commercial intercourse with foreign countries is absolutely necessary as the only means of preventing the importation of contagious and infectious disease into this country from other countries, and that a perfect and uniform system is equally necessary to prevent the importation of such diseases into one State from another.

Some of the States have adopted systems of quarantine regulation which, in the opinion of the committee, are sufficient, so far as treatment at the port of entry is concerned; but many others have no quarantine regulations whatever, and if a single gate is left open to the introduction of such diseases the whole country may suffer the disastrous consequence of fatal epidemics.

Scientific investigation has asserted that neither yellow fever nor cholera originates in this country, but that if either is imported, under certain atmospheric conditions they will take root and spread with disastrous rapidity and fatality.

The most important of all considerations is to keep them out, and in the opinion of the committee the only means of effectually preventing their importation is a thorough system of national quarantine, which shall be uniform and enforced with vigor at every point of intercourse with foreign nations, and equally uniform and equally enforced as between States.

State quarantine authorities have been jealous of any interference by national authority with their quarantine regulations, and those of New York and New Orleans have heretofore steadily opposed any national control of the subject.

The quarantine regulations of these States give a large revenue to these States or to their boards of health, and for that reason, if for no other, they may be expected to oppose national control.

Now, however perfect their systems of regulations and the systems of other States may be, they are but the systems of a small proportion of forty-four States.

The forty-four States need, demand, and are entitled to protection from this importation of disease.

The eighth section of article one of the Constitution of the United States provides that—

Congress shall have power to regulate commerce with foreign nations and among the several States and with the Indian tribes.

The regulations proposed by this bill are strictly regulations of foreign and interstate commerce and nothing more.

The transportation of a person or any article of merchandise from any foreign country to this country, or from this to any foreign country, is an act of "commerce with foreign nations," and the transportation of persons or property from one

State to another is an act of "commerce among the States."

This bill proposes to so "regulate commerce with foreign nations and among the several States" as to strip it of contagion and infection.

NATIONAL QUARANTINE.

The Quarantine Bill passed by the United States Senate, Tuesday, January 10th, consists of ten sections of carefully framed legislation which seem to us to provide reasonable security for the public health from the invasions of infectious or contagious diseases. It provides for medical inspection of all vessels both at the port of departure and that of entry, and requires from each a clean bill of health, thereby protecting the country against infection from abroad. It authorizes the establishment of quarantine as between the States, so that if such disease should effect a landing, its progress may be stayed. It abolishes the National Board of Health, and puts the whole subject under the control of the President of the United States, with ample power for needful details in the hands of his Subordinate, the Secretary of the Treasury, thereby making prompt action possible in any emergency. It provides for adequate penalties for the violation of the law or of any regulations established under it; and appropriates $1,000,000 to carry its provisions into effect, thereby, putting power behind all its provisions.

RESUME OF MEDICAL PRACTICE ACTS IN THE DIFFERENT STATES AND TERRITORIES.

In response to numerous requests we give the following, taken from *Medical Education*, etc., published by the Illinois State Board of Health, 1891.

ALABAMA.—Examination by the State Board of Examiners, or by a County Board of Examiners. Law passed in 1877.

ARIZONA.—Register diploma with County Recorder. Passed in 1881.

ARKANSAS.—Registration of diploma or examination by the State or a County Board of Examiners (latter inoperative). Law passed 1881.

CALIFORNIA.—Certificate on diploma from a college in "good standing" or examination by one of the three Boards of Examiners. Passed in 1876.

COLORADO.—Certificate on diploma of college in "good standing" or examination by the State Board of Medical Examiners. Passed in 1881.

CONNECTICUT.—No law except against advertising itinerants.

DELAWARE.—Registration of diploma in a County Clerk's office. Passed in 1883.

DISTRICT OF COLUMBIA.—Endorsement of diploma or examination by committee of the District Medical Society (practically inoperative). Passed in 1838.

FLORIDA.—Examination by one of the State or District Boards of Medical Examiners. Passed in 1884, 1889.

GEORGIA.—Registration of diploma in the office of the Clerk of the Superior Court. Passed in 1881.

IDAHO.—Record diploma at county seat. Passed in 1887.

ILLINOIS.—Certificate on diploma from college "in good standing" or examination before the State Board of Health. Passed in 1877, 1887.

INDIANA.—Registration of diploma in County Clerk's office. Passed 1885.

INDIAN TERRITORY.—(*a*) Cherokee Nation: Examination by the Board of Examiners of the Nation. Passed 1878. (*b*) Choctaw Nation: Certificate on diploma or examination by the Board of Examiners of the Nation. (*c*) Creek Nation: No law.

IOWA.—Certificate on diploma from college "in good standing" or examination by the State Board of Medical Examiners. Passed 1886.

KANSAS.—No law.

KENTUCKY.—Ten years' practice, or registration and endorsement of diploma of a legally chartered college by Secretary of the State Board of Health. Passed 1874, 1888, 1890.

LOUISANA.—Recording diploma before County Clerk or Justice of the Peace after endorsement of same by State Board of Health, which is "required to certify to the diploma of any medical institution of credit and respectability without regard to its system of therapeutics." Passed 1882, 1889.

MAINE.—No law.

MARYLAND.—Verification of diploma of "college in good standing," or examination by State Board of Health (law inoperative). Passed 1888.

MASSACHUSETTS.—No law.

MICHIGAN.—Record diploma in County Clerk's office. Passed 1883.

MINNESOTA.—Examination by State Board of Medical Examiners. Passed 1883, 1887.

MISSISSIPPI.—Examination by a County Board of Medical Censors. Passed 1882.

MISSOURI.—Certificate on diploma from college in "good standing" or examination by State Board of Medical Examiners. Passed 1883.

MONTANA.—Ten years' practice, certificate on diploma from a college "in good standing" or examination by State Board of Medical Examiners. Passed 1889.

NEBRASKA.—Register in the office of the County Clerk. Passed 1881, 1883.

NEVADA.—Register diploma before the County Recorder. Passed 1875.

NEW HAMPSHIRE.—License from the Board of Censors of Medical Society.

NEW JERSEY.—Examination by the State Board of Medical Examiners. Passed 1880, 1888, 1890.

NEW MEXICO.—Endorsement of diploma or examination by Territorial Board of Examiners. Passed 1882.

NEW YORK.—Examination by one of the State Boards of Examiners, after September 1, 1891. Endorsement of diploma until September 1, 1891. Law passed 1880, 1888, 1890.

NORTH CAROLINA.—Examination by the State Board of Medical Examiners. Passed 1859, 1885.

NORTH DAKOTA.—Examination by the State Board of Medical Examiners. Passed 1890.

OHIO.—Law inoperative.

OREGON.—Certificate on diploma from a college "in good standing" or examination by the State Board of Medical Examiners. Passed 1889.

PENNSYLVANIA.—Registration of diploma before County Prothonotary after endorsement (of diploma from college outside of State) by some Medical College within the State. Passed 1881.

RHODE ISLAND.—No law.

SOUTH CAROLINA.—Examination by the State Board of Medical Examiners. Passed 1881, 1888.

SOUTH DAKOTA.—Certificate on diploma, or examination by the Territorial Board of Health. Territorial law 1884.

TENNESSEE.—Registration after certificate on diploma of college "in good standing" or examination by State Board of Medical Examiners. Passed 1889.

TEXAS.—Registration after endorsement of diploma, or examination by a District Board of Examiners (practically inoperative). Passed 1876, 1879.

UTAH.—No law. (*Recent enactment requiring examination not at hand.*—ED.)

VERMONT.—Registration after endorsement of diploma, or examination by a Board of Medical Censors appointed by either State Medical Society. Passed 1880.

VIRGINIA.—Examination by State Medical Examining Board. Passed 1884, 1888.

WASHINGTON.—Examination by State Medical Examining Board. Passed 1890.

WEST VIRGINIA.—Certificate on diploma of "reputable" college, or examination by the State Board of Health. Passed 1882.

WISCONSIN.—Examination or endorsement of diploma by the censors of any State or County Society. Laws of 1878, 1881.

WYOMING.—File record of diploma with Registrar of Deeds. Passed 1886.

In Minnesota, Montana, North Dakota and Washington every applicant for license to practice must have attended three courses of lectures. The same will be required by the California Boards after April 1, 1891; the Colorado Board after July 1, 1893; by the Illinois and Iowa Boards after the session of 1890–91 and by the Boards of Examiners of New York after September 1, 1891. There will probably be three more State Examining Boards in the next year.

TRANSLATIONS.

GONORRHŒAL INFECTION—MODES OF EXTENSION.

There is no doubt that blennorrhœa in women is of more frequent occurrence than is generally accepted and that its results are more extensive than was formerly taught. It has been shown that blennorrhœa in the female can involve the entire genital tract—the uterus, tubes, ovaries and even the neighboring peritoneum may be attacked by acute inflammation. It has also been shown that women in the first days of their married life have been infected by their husbands, who, since they had no discharge, had been declared by their physicians to be cured, or who married when they themselves felt satisfied they were no longer diseased. In this manner many young women begin to suffer more or less from the early days after marriage to the end of their natural life. Menstruation becomes abnormal; the uterus and its adnexa undergo inflammatory changes; the wife may abort frequently or remain sterile, or she may bear one or two children, and the puerperium may be complicated with inflammation.

A large number of such unfortunate women present themselves to us and often try our patience to the utmost. They frequent the various sanitaria and markedly increase the percentage of the nervous hysterical women. Their sterility, from the social standpoint, is really deplorable, since large families die out and the population is much influenced. That women so affected can still become pregnant no one doubts, but that blennorrhœa produces pathological changes in the uterus,

*Translated for MEDICAL AND SURGICAL REPORTER.

tubes and ovaries has been demonstrated also beyond a doubt.

In relation to the diagnosis and course of this disease the author differs from Zweifel, Saenger, Fritsch and others. It is remarkable that these eminent men have, by various theses, explained the origin of blennorrhœa as accepted to-day in almost the same words as those of Nœggerrath; and we to-day understand the etiology of the microbes of blennorrhœa. According to their investigations, blennorrhœa in the male will exist a long time after infection without any symptoms being present. This is termed latent blennorrhœa and will induce in the female also a latant blennorrhœa, which may not produce any symptoms for months, oft times none, until marked disease of the uterus and its appendages attracts the attention of the physician. In such the secretions show no gonococci.

Dr. Feleki contends that latent blennorrhœa exists neither in the male or female, but that the male may have an urethritis of either a contagious, acute, or chronic character, or no blennorrhœa; or he may have, resulting from an old blennorrhœa, the pathological changes which cause the urethritis.

Inflammation of the urinary tracts of an infective character in the male, even if of some years standing and showing no discharge, will produce in the female a typical, not latent, attack of blennorrhœa. The definite diagnosis of blennorrhœa in chronic cases can only be secured when gonococci are found in the secretions or urine.

In the inital stages of blennorrhœa, gonococci are always found; and in the chronic stages, they are always present, except in those cases where the catarrh is no longer present, but pathological changes can be thoroughly demonstrated, or where other affections are present which change the character or cause of the secretion.

The author having studied this subject for several years has arrived at the following conclusions:

First. Chronic blennorrhœa in the male, even if no other symptoms are present, has the occasional appearance of gonococci in the urine, and will produce in the female a typical attack of blennorrhœa.

Second. If the secretion from the urinary passages of the male contains no gonococci, there will be no direct attack of blennorrhœa in the female.

Lastly the author calls attention to an affection which has received very little study of late, namely, pseudo-gonorrhæa. It is known that an infectious urethritis can exist in the male, the secretion of which will show no gonococci throughout its course. It is questionable whether this appears in the female. As facts directing the attention to this point the author cites Ophthalmo - Blennorrhœa Neonatorum. Investigation has shown that this disease from its etiology and course could be divided into two groups. In the group which could be classed the severer, the gonococci could be found in the secretion, while in the cases of lighter form the microbe could not be found. The question naturally arises if in these lighter forms the cause was that of pseudo-gonorrhœa.—(*Wiener ärztl. Centr.—Auz.*)

Vermiform Appendix Containing a Foreign Body Found in a Hernia.

H. Schmidt (*Münch Med. Wochen.*, 1892). The vermiform appendix is rarely found within a hernia, but few cases having ever been recorded in medical literature. The author reports one case. A woman aged 53, who had a right inguinal hernia of recent origin, which became inflamed, and after a few weeks opened and discharged blood, pus, and fecal matter. During the operation Schmidt found a hernia sac in which was caught a vermiform appendix—along the side of this a sound could be readily passed into the abdominal cavity.

The hernial sac was removed and its opening closed. Complete recovery. Close examination of the removed vermiform appendix disclosed the presence of a large black pin.

Personal Experience in the Operative Treatment of Ruptured Tubal Pregnancy.

(*Berlin Klin. Wochen, 1892.*) Gusserow gives a report of twenty cases operated upon by him. In thirteen of these there had been no premonitory symptoms previous to the collapse brought on by internal hemorrhages, while in seven there had been a formation of an hematocele previous to the dangerous hemorrhage which called for operation.

In the first group of thirteen there were two deaths. One due to collapse, the operator having been called too late. The

other died thirty days after from chronic disease of the kidneys.

In the second group of seven cases there was one death.

Gusserow advises, as a result of his experience, operation for all cases of ruptured tubal pregnancy. He would not hesitate to have a patient in collapse taken to the hospital for operation. Prognosis is always more favorable the earlier the cases are recognized and operated on.

In closing his remarks he expresses himself in favor of operation on such cases in which the diagnosis is clear, previous to rupture, but adds that sure diagnoses are ofttimes difficult, since a small ovarian cystoma lying close to the uterus might be taken for tubal pregnancy. In such cases he advised placing the patient under careful and close observation, absolute rest and expectant treatment, in order to determine if the uterus or the tumor increases in size. It is of yet greater difficulty to determine whether the ovum in the tube still lives or not: a question which materially influences the operator in deciding upon prompt interference.

ABSTRACTS.

THE ADMINISTRATION OF CHLOROFORM, AND ITS DANGERS.

In an address before the Inter-colonial Medical Congress of Australasia, Dr. James Robertson, President of the Section in Medicine, says:

The vital importance of the subject, the frequent occurrence of fatalities, and the conclusions arrived at by the Hyderabad Chloroform Commission, which he regards as fraught with danger, induced him to select this subject.

The administration of chloroform—the most potent and valuable of anæsthetics—is to be regarded as one of the most responsible duties devolving on a medical man; seeing that the life of a human being is at stake, and its sudden termination is dependent, in a great measure, on his care and vigilant circumspection. Notwithstanding the numerous attestations in favor of chloroform, many in doubt and distrust are adopting the use of ether.

No anæsthetic can be said to be absolutely free from danger, but with judicious care and caution the risk may be reduced to a *minimum*. Chloroform has been well described by Dr. Lauder Brunton, as being "like a sharp knife in the hands of the surgeon, as compared with a blunt one. It is more efficient for good, if properly handled; it is more powerful for evil, if misused." Ether, it must be allowed, is less dangerous than chloroform, in not causing so much depression of the heart's action, but it is unpleasant, irritating to the air-passages, cannot be used under certain circumstances or in every case.

Chloroform maintains supremacy as the most "pleasant, speedy, and efficient" anæsthetic, requiring no special apparatus, suitable in every case fit for operation, and safe when given with judicious care. Its advantages are such, that it has been generally adopted in preference to all other anæsthetics, and is still regarded with most favor.

In 1888, and again in 1889, Commissions were appointed by His Highness the Nizam of Hyderabad, at the request of Surgeon-Major Lawrie, to investigate the action of chloroform. The philanthropy of His Highness, in liberally supplying funds for the experiments, and the expenses of an expert sent from England, cannot be too highly appreciated, the laudable object of the commission being, in the words of the Nizam, "to save people's lives." The commission, after the sacrifice of hecatombs of dogs and monkeys, arrived at the conclusions, that, "in every case where chloroform was pushed, the respiration stopped before the heart," and that "the administrator should be guided as to the effect entirely by the respiration." The numerous experiments and their record manifest careful and laborious investigation, and merit the thanks of the profession, but the conclusions arrived at cannot be accepted as applicable to human subjects. The result of the experiments has been to direct attention to a subject of vast importance, and to arouse inquiry, which cannot be otherwise than beneficial.

My experience of the administration of chloroform extends from the year of its introduction by Professor Simpson, 1847, the year in which I myself commenced practice. For nearly forty-five years I have exhibited that anæsthetic in many thousand cases, often in prolonged operations, and never with fatal consequences. I refrain from reducing the number to figures, as I cannot even give a close approximation to it. In not a few instances, alarming and even dangerous symptoms have presented themselves, and have strongly impressed me with the risk of trusting alone to respiration as the index of danger. I have watched both pulse and respiration, and ultimately came to regard the state of the pulse as the first signal of danger. I have no new experiments to lay before you, but I shall endeavor to demonstrate, from the experiments of others, and from clinical observation and experience, that the state of the pulse is not of less importance than the state of respiration, as an indication of danger in the administration of chloroform; that it is, indeed, the earliest and most significant danger signal.

Different individuals are differently affected by chloroform inhalation, and this may be accounted for by constitutional peculiarities. Some inhale quietly, and are speedily brought under its influence; some become excited, and toss their extremities about; while others resist and struggle violently. This, however, may be due to the mode of administration.

It is very generally urged, that the pulse should not be taken as any guide in the administration of chloroform; that the respiration alone demands attention. This contention seems to be strengthened by the Report of the Hyderabad Commission, to the effect that, in animals respiration always stopped before the heart, and that all danger can be averted by attending to the respiration alone. Although I do not decry the results of experiments on the lower animals, inasmuch as they afford most valuable indications, I object to hard and fast lines being drawn, and hesitate to accept the dictum, "that the effects of chloroform are identical in the lower animals and in the human subject." It is well known that the effects of various drugs differ much, more especially of narcotics, when administrated to the lower animals and to man. The lower animals are not capable of being influenced by the same feelings and emotions as man, and, according to the testimony of the Hyderabad Chloroform Commission, operations liable to produce shock and syncope in man, were singularly devoid of effect in dogs. The effects of chloroform are not uniform in different human individuals, even when administered in the same way, and in certain definite proportions, or even in the same individuals at different times. According to the experiments of the Hyderabad Chloroform Commission, respiration always fails before the circulation, and there is no such thing as chloroform syncope. Experiments on animals reported by other Commissions, "the Royal Medico-Chirurgical Society's Committee of Inquiry," and "the British Medical Association's Committee on Anæsthetics," negative to some extent the conclusions of the Hyderabad Chloroform Commission, showing that, while in most cases the respiration stopped before the heart, sometimes both respiration and the heart's action failed simultaneously, and sometimes the heart failed before respiration. The testimony of other observers is not less adverse. Dr. Snow, forty years ago, showed that, in animals killed by chloroform inhalation, when the air contained not more than 5 per cent. of vapor, the heart continued to pulsate when respiration had ceased. When the air contained 10 per cent. and upwards, death took place more speedily, respiration and circulation ceasing at the same time, there being sufficient vapor in the lungs at the moment the breathing stopped to paralyse the heart, as soon as it was absorbed and added to that already in the blood. This, he terms its cumulative property, when the effects of chloroform increase after discontinuance of inhalation.

It appears that the most immediate effect of chloroform on the heart, or on the respiration, was influenced by the more or less concentrated state in which it was administered. But, even were it proved that chloroform invariably causes death in animals by paralysing the respiration, we have the most positive evidence that failure of the heart's action is the most frequent cause of death in man. An overwhelming amount of evidence has accumulated, and still continues to accumulate, since the first recorded death from chloroform in 1848, to the effect that the

occurrence of death in the human subject is almost invariably due to primary failure of the heart, or syncope. Such is, indeed, the principal source of danger, and it is a remarkable circumstance that a diversity of opinion should exist in regard to a question capable of definite solution.

Clinical experience goes to prove that death from failure of the heart is the usual source of danger in the human subject, and is especially liable to occur when the vapour of chloroform is inhaled in a concentrated form, or insufficiently diluted with air. The records of the numerous fatal cases reported in the various medical periodicals conclusively attest that death from syncope is the most common termination in man. For not only have the deaths been attributed to failure of the heart, but in cases where *post-mortem* examinations were made, such lesions have been described as "fatty heart," "flabby heart" "heart dilated," &c., &c. It is well known, however, that in many, if not in most, cases, where death has supervened, no lesion of heart, or of any other organ, has been discovered—that, in fact, the syncope was due to chloroform poisoning.

THE INDICATIONS AND SOURCES OF DANGER OF CHLOROFORM NARCOSIS.

The period of greatest danger appears to be at the commencement of inhalation, before the patient has been thoroughly brought under its influence, and not during the progress of even a prolonged operation. It has been stated that the danger of failure of the heart's action, from the depressing effect of chloroform, depends on, and is in proportion to the length of time of inhalation, and consequently of the operation. This, however, is not the case. If chloroform is given sufficiently diluted with fresh air, and respiration continues normal, the vapour of chloroform is exhaled, as well as inhaled, and the blood does not become so saturated, as to endanger the heart. The danger is, in a great measure, dependent on the amount or degree of concentration of the vapour inhaled; as the vapour, if inhaled insufficiently diluted with air, affects the heart more directly, and may lead to sudden paralysis of that organ.

The immediate causes of death in chloroform toxæmia, are syncope, and apnoea. In the large majority of cases, death takes place from sudden syncope in the human subject, due to paralysis of the heart.

Death may also result from syncope brought about by the combined effects of sickness of stomach, and the depressing influence of chloroform on the heart. This stomach sickness, or nausea, has been stated "to be only unpleasant and inconvenient, desirable to avoid, but not attended with any danger." It has, however, proved a real danger, inasmuch as in not a few cases, suffocation has been induced by food being drawn into the glottis during the effort of vomiting. But apart from this, when there is no food in the stomach, there is, in my opinion, a real danger attending sickness, unless the pulse is watched. I have frequently observed the pulse became slow and weak, and the lips blanched, and have thus been led to withdraw the chloroform instantly, and then the faintness was followed by vomiting. If, instead of withdrawing it, chloroform had been pressed, as I have somewhere seen advocated "to stop the contractions of the stomach," it might have resulted in stoppage of the heart's action. I am strongly of opinion that, when a patient is in a fainting condition, even a small dose of chloroform may so affect the heart, as to cause complete cessation of its action, and that the pulse gives the first indication of danger, the first warning, respiration if at all, being but little influenced.

Deaths from apnoea are only occasionally met with. They arise from spasms of the glottis and diaphragm obstructing the respiration, and are sometimes attributed to reflex action in some operations (ligaturing hemorrhoids, etc.), when the patient is not thoroughly anæsthetised. Apnoea is sometimes attributed to the tongue falling back and occluding the glottis, when a patient is lying on the back under the influence of chloroform narcosis; from this source, I have never seen any cause for alarm.

PRECAUTIONS TO BE OBSERVED IN ADMINISTERING CHLOROFORM.

It will be readily admitted that the chloroformist should give his whole attention to his patient; should see that the chloroform is pure; that the patient has not recently eaten food; that he is placed in the recumbent position, or in such a position as not to obstruct respiration, all

articles of clothing being loose about the neck, chest, and abdomen. I regard the use of table-napkin or towel folded in the form of a cone, with or without an aperture at the apex, such as was originally proposed by Professor Simpson, as well adapted for the purpose. One-half to a drachm of chloroform should be sprinkled on the napkin as required, so as not to moisten the border likely to come in contact with the face.

In commencing inhalation, always allow sufficient space for the free admission of atmospheric air, so that the vapour may be diluted, and its effect may be gradually produced, so as to avoid exciting cough or struggling. Allowance should be made in the warm season of the year for the effect of temperature in rendering chloroform more volatile, and thus causing the air to become more saturated with the vapour. Patients should be gradually brought under the influence of chloroform until its full effect is produced, and then very little chloroform will be required to maintain insensibility. The vapour may be diluted with more air, by withdrawing the inhaler to some extent, or inhalation may be intermitted for two or three inspirations occasionally.

The state of the pulse should be carefully watched; it gives the first indications of danger. When the pulse becomes weak and slow, perhaps irregular and intermittent, fresh air should be freely admitted; when, moreover, respiration becomes shallow and feeble, perhaps stertorous, the inhaler should be withdrawn altogether for a short time. In prolonged operations, special care should be taken that the vapour inspired is sufficiently diluted with fresh air, so as to guard against sudden syncope, the most frequent cause of a fatal termination in the human subject.

MEASURES TO BE ADOPTED IN SUSPENDED ANIMATION FROM CHLOROFORM.

The head should be lowered and feet elevated, and artificial respiration commenced without delay, fresh air being freely admitted, and any obstruction to respiration removed. Nelaton's plan of inverting the body, and artificial respiration, are without doubt most conducive to resuscitation in chloroform poisoning. By this means the blood will gravitate towards the head, and the action of the heart may be roused to contract, and send a supply of blood to the brain and medulla, so as to stimulate the cardiac and respiratory centres.

No successful issue has followed the employment of galvanism that I have heard of; and certainly, not more benefit can be expected to result from nitrite of amyl inhalation, which causes dilatation of the peripheral blood-vessels, a condition already existing to the fullest extent, and which it is desired to remedy. Nitrite of amyl is therefore contra-indicated. The injection of ether subcutaneously, or of ether and strychnine, is more rational, and likely to prove of benefit, artificial respiration being kept up. Mr. Bader (Ophthalmic Surgeon, Guy's Hospital) states that, "out of a large number of cases (3224), some presented serious symptoms, becoming blue in the face, with stertorous breathing and irregular pulse, seven became pale suddenly, with respiration and pulse stopping. In all these cases the chloroform was removed, and the patient slowly and gently turned to the left side. Patients recover rapidly when placed on the left side, due, it may be, to the support given to the heart, or to a change in the position of the tongue." This, he states, is the sole means adopted at Guy's for the last six years.

The Marshall Hall method failing to restore animation in a desperate case, Dr. Prince, (Illinois State Medical Society, 1891,), adopted a new method of resuscitation based on Nelaton's method of inverting the body:—He seized the patient, a boy of 14 years, by the ankles, his knees being flexed over the doctor's shoulders, with head and arms dangling toward to floor. In that position he subjected him to "double-quick motion around the operating-room, and after about three minutes, the sounds of restored respiration were heard." The doctor further states:—"Each step was taken with a springy motion, by which the weight of the intestines resting upon the diaphragm would be alternately applied and removed with the tread, the effect of which would be calculated to stimulate the heart and force the blood along its channels, while the air was simultaneously changed in the lungs." Three other cases are related, one a young woman of great weight (140 lb.), another a physician, who were subjected to similar treatment with alike favorable results. As it appears that in

two of the four cases reported, the Marshall Hall method of restoring animation was had recourse to, without success, before adopting the method described, the success of the new method appears to be the more remarkable, seeing a considerable time (not noted) was said to have elapsed before it was commenced. That fact caused me to hesitate in crediting the report, but the circumstantiality in detail, the names and dates, etc., forbade my entertaining any doubt of its genuineness.

From the preceding remarks, it will be apparent, that, in my opinion, chloroform is the best anæsthetic yet discovered; that it is quite safe if judiciously administered, and its action closely watched; that the pulse, and not the respiration, gives the first indication of danger, and ought, therefore, not only to be constantly under the fingers, but to occupy the attention. —*Australian Med. Jour.*

APPENDICITIS:—MEDICAL AND SURGICAL MANAGEMENT.

At the September meeting of the Missouri Valley Medical Society, Dr. A. F. Jonas, read a most interesting paper on the above subject. Notwithstanding the fact that the topic is almost worn threadbare, it is one of such importance that the physician should be alive to the necessity of being ever ready to meet it, especially does this apply to those physicians practicing in rural districts where they do not have time nor opportunity to call counsel.

While surgery is making such rapid strides followed by most brilliant results; he advises the younger practitioners not to be carried away with the idea that medicinal means are of no avail, in the tieatment of appendicitis, but urges a more thorough study of the disease, and accuracy in diagnosis. Good sound judgment and anatomical knowledge of the parts are absolutely necessary, before the physician can be sure of just when to call surgery to his aid.

He gives a table of a series of thirty cases, which have occurred in his practice, or have come under his notice. The treatment was largely surgical; a few cases apparently recovered under medicinal measures. After carefully considering the various means, usually employed in the treatment of appendicitis he summarizes as follows:

1. When called early, insist on absolute rest in bed.

2. Fomentations, if pain is severe, and give codeine if necessary.

3. Salines (liberal doses) every half hour until four to six fluid stools are produced.

4. If the salines, after having produced free catharsis, fail to relieve, or aggravate the pain and fever; *operate.*

5. If salines fail to produce free catharsis; *operate.*

6. Temporizing with salines, or any other form of medicinal treatment, is worse than useless. When there is the slightest evidence of the presence of pus, an operation must be done at the earliest possible moment.

7. Guard against over-zealousness in search of the appendix, in large abscess cavities, lest the limiting intestinal agglutination be broken down and general peritoneal infection follows.

8. Always remove the appendix when it can be safely done.

9. Elevate the pelvis, as in Trendelenburg's position, in cases of small abscess limited to the lumen of the appendix or its mesenterium, or in any case when the peritoneal cavity is entered and where the intestinal distention is such as to make it difficult to find the caput-coli, or the appendix.

WHY SHOULD I NOT USE THE FORCEPS?

This is the title of a highly interesting paper, read before the Topeka Medical Society, by Dr. M. R. Mitchell.

After giving a brief history of the forceps, mentioning the principal objections to their use as well as the advantages, he concludes that three questions present themselves, viz.: "How can they be suc-

cessfully and advantageously used ?"

"When should they be used ?"

"Why should they be used ?"

In answer to the first query, he says the main points are accurate diagnosis; thorough knowledge of the mechanism of labor; perfect cleanliness; gentleness and a cool steady hand. Every physician should possess reliable instruments and accustom himself to their use.

The indication for their employment is a matter of judgment, and the individual case.

Before resorting to the forceps the accoucheuer should have ready all necessary medicine and appliances, in case of danger to the child, or hemorrhage following. Coolness and decision should characterize his movements under all circumstances. He thinks that those who condemn their use and portray tales of woe and bloody work of the instrument, have entirely misjudged their proper and judicious use; that where properly and skillfully applied they do not cause laceration of the perineum that would occur in normal labor.

He declares that many mothers' lives might have been saved; and there would be fewer still-born children if physicians did not so closely adhere to that adage, "Meddlesome mid-wifery is always mischevious."

A CASE OF ALBUMINURIA DURING PREGNANCY.

In a paper read before the Obstetrical Society of Cincinnati, (*Med. Progress*), Dr. C. D. Palmer gave the history of a case of a patient who he found had considerable swelling of face and albuminous urine.

Fearing puerperal convulsions, he placed her on saline treatment and then deemed it best to induce labor.

Improvement began, and the albumen diminished. On fourth day after delivery, however, she began to have difficulty of breathing. On examination he found that she had a commencing pneumonia. She was placed under the influence of carbonate of ammonia and small doses of morphia. Next day finding an irregular dicrotic pulse of 140 to 150, he gave her hypodermically two drops of a one per cent. solution of nitro-glycerine.

Immediate improvement followed, this dose was repeated three times daily, for a while and then given by the mouth.

The urine became less albuminous and breathing less laborious; at the end of a month the patient was discharged.

While nitro-glycerine has no direct action on the heart, it has a most potent influence, indirectly. It will increase the secretion of urine by directing the blood from the kidneys, in Brights' disease, to the outside of the body.

This is the third case of this kind, in which Dr. Palmer has used nitro-glycerine with the same pleasing results.

PLACENTA PRAEVIA.

Dr. R. S. Kelso read a very interesting and practical paper before the South-west Medical Society at West Plains, Mo., (*Kansas City, Med., Index*) on the above subject. He prefaces his article, by giving the history, symptoms and pathology of the trouble, and urges more thorough study and preparation to meet the emergency.

The treatment varies: the general rule holds good, that what is best for the mother, is best for the child, i. e., speedy delivery.

Slight hemorrhages, require nothing further than close watching and rest in bed.

When hemmorrhage is severe, or oft repeated, delivery should be hastened.

If the os is but slightly dilated, tampons may be used,—being left in for twenty-four to thirty-six hours. Then on removal if dilatation has occurred sufficiently, grasp the presenting part or turn and deliver. Strict antisepsis should always be observed.

The situation is one of such gravity that the physician should not loose his head. A steady nerve and knowledge of what to do at the right time, will help him in many trying moments.

Veratrune Viride in Scarlet Fever.

In the *Columbus Medical Journal* Dr. R. E. Chambers gives his practical experience of over thirty years, in the use of this remedy. He claims that it has always given him good results, and that when called to a case of scarlet fever, he has a remedy that will not disappoint him in cases free from such complications as failure of the kidneys to secrete, pulmonary edema, etc. Furthermore, these complications will not occur if the case is seen and treatment begun early. As proof of the usefulness of the drug in this disease, he cites an instance in which he was called to a family of eight children, all ill with a severe type of scarlet fever,—circulation rapid, fever high, throats intensely swollen and offensive. Giving a most unfavorable prognosis, he began giving Norwood's tincture of veratrum viride with nitric ether; using one drop of the veratrum for each year of age of child, with three times the amount of ether. This medication was continued every hour, until vomiting was produced; then discontinued until fever should be manifest, then every three hours until vomiting should occur again. A solution of Chlorate of Potash was used in their throats, also free sponging externally. This treatment was followed out and in a few days the cases were convalescent.

He considers the drug a safe and sure remedy in the treatment of scarlet fever even claiming that some cases be aborted by its timely use.

Specific Urethritis in Children.

Dr. John A. Weyeth, in a clinical lecture, said that gonorrhœa in young children is comparatively rare. Reference to works on diseases of children fail to show anything on this subject, and standard authorities on genito-urinary diseases mention but few isolated cases.

He is of the opinion that there are many cases that escape observation, or are treated for something else.

The principles of treatment do not differ from those which govern specific urethritis in an adult. The principle interest centres in the diagnosis, which must be accurately made in every suspicious case.

Emergencies.

Accidents in giving Anæsthetics.—Tincture of digitalis hypodermically; draw out the tongue and see that respiration is not mechanically impeded; invert the patient quickly and temporarily; use forced respiration promptly; apply external warmth and stimulation; avoid the exhibition of alcohol.

Angina Pectoris.—Inhalation of chloroform, or a few drops of nitrate of amyl; 1-100 grain of nitro glycerine, internally; placing the feet in hot water; mustard to the precordial region; dry cup between the shoulders; hypodermic injections of morphine and atropine; administration of stimulants and anodynes.

Apoplexy.—Elevate the head and shoulders; if pulse is moderately strong and the brain congested, bleed from the arm freely, sixteen ounces or more; electerine (one-sixth grain) or croton oil, two drops in a drachm of sweet oil or glycerine; cold to the head by means of an ice bag.

Asphyxia—In drowning, hold the patient's head downward for a few seconds. In hanging or choking, bleed from the jugular. If there is obstruction to passage of air through the mouth or nose, open trachea. Artificial respiration at once, and to be continued. Friction, warmth, warm bath (100°) ammonia to nostrils, galvanizing of phrenic nerve.

Asthma, Spasmodic.—Hypodermic of atropine into the nape of the neck; inhalation of smoke of stramonium leaves; fluid extract of nux vomica, internally, alcohol, ether, chloral, opium; inhalation of chloroform cautiously administered.

Colic, Gall.—Morphine, hypodermically; inhalation of chloroform; hot applications to the abdomen.

Coma.—Dark room; head high and cool; head shaved; low diet; croton oil; if due to compression, antiseptic trephining; if due to anæmia, pilocarpine and hot baths.

Heat Stroke.—Remove clothing, sprinkle with water, cold cloths to the head, hot cloths to the feet; antipyrin; bleeding in robust subjects. After temperature is reduced give alcohol and diffusible stimulants, hypodermically if necessary.

Hiccough.—Acid drinks, cold douches, ether or chloroform internally, externally or by inhalation; musk, opium, antispasmodics.

CURRENT LITERATURE REVIEWED.

THE AMERICAN JOURNAL OF OBSTETRICS

For January contains two articles on

Ectopic Gestation.

The paper by Dr. James W. Ross, of Toronto, Canada, is a scholarly article, well worth the attention of the practitioner, whether he be an abdominal surgeon or no. In his classification of the different varieties of this accident, Dr. Ross follows Tait and Parry closely. He thinks that ovarian pregnancies are as yet not proven and, while stranger things have happened, the proofs adduced do not seem to him convincing. Of the causes of extra-uterine fœtation, he considers gonorrhœa the most frequent; acting, as it does, by destroying the cilliated epithelium of the tube and preventing the passage of the ovum into the uterus. The symptoms are minutely discussed and stress is laid on a period of sterility followed by a supposed abortion. Should such a patient present herself with a pelvic mass and elevated temperature, she should be closely questioned as to the supposed abortion, as such, he says, are frequently cases of ruptured ectopic gestation. As to the diagnosis of extra-uterine pregnancy before rupture, he says, "no man can be positive of his diagnosis of intrapelvic disease until it is confirmed by abdominal operation." The assertion is a sweeping one, yet we believe it to be true in the main. In regard to the treatment, he thinks that there is but one—the knife. Of electricity, he remarks that there is, as the Yankee said, "nothing to it." The argument for and against electricity is discussed in the same masterly manner that characterizes the whole paper. The article closes with a table of extra-uterine operations.

The second paper on "Extra-uterine Gestation,"* from the pen of Dr. Edwin B. Cragin, of New York, deals with the subject purely from the operative point of view and is an account of the operations the author has performed, with the history of the cases. The article is illustrated with several photographs of the specimens. In his views on the diagnosis and treatment, he coincides with Dr. Ross.

Dr. W. W. Jaggard, Chicago, contributes a

Note on one of the Conditions of the Use of Electricity in the Treatment of Uterine Fibroids.

Electricity was applied in a case of multiple fibromata, in accordance with Apostoli's method, with the result that the tumor became perceptibly harder and the oozing of blood ceased. After two or three applications the patient developed a fatal septic peritonitis and at the post-mortem the peritoneal cavity contained serum, flakes of lymph, and two tablespoonfuls of pus. The tubes presented signs of catarrhal salpingitis, but contained no pus. The case goes on record as a death following the use of electricity for fibroids; whether the fatal result was due to the agent used or not. Again, it confirms the observation often made that disease of the adnexa is present in nine out of ten fibroids, as shown in those removed by hysterectomy. Since Apostoli has pointed out that tubal disease is a contra-indication to the use of electricity, it would seem as if the number of fibromata suited to his treatment is very limited.

Ventral Hernia Following Laparotomy

Is the title of a paper by Dr. L. H. Dunning, of Indianapolis. The various causes of this accident are well shown, such as the prolonged use of the drainage tube, constipation, and a lack of tonicity of the tissues. The prevention of the trouble lies in the careful approximation of the divided structures, with avoidance of the other conditions that lead to hernia. The abdominal binder is recommended to be worn for at least a year after operation. The operations for the relief of the hernia are clearly described.

Dr. Samuel L. Weber, of Chicago, contributes

A Prompt and Radical Cure of Mammary Abscess by a New Method of After Treatment.

He treats the abscess by an incision in a line radiating towards the nipple and a thorough curetting of the abscess cavity, followed by a douche to wash out all debris. The cavity is then packed with strips of gauze soaked in a one per cent. carbolic solution; the packing being renewed every twenty-four hours. After two or three days of such packing the cavity will be found healthy and filling up with granulations. The packing is now stopped and the wound covered with a thin layer of gauze over which a large flat sponge is placed, covered with a piece of oiled silk, and held in place by a firm bandage; the idea being to make as firm compression as possible. To aid in this compression, the sponge is soaked, after the bandage is in place, with the carbolic solution. The breast should be compressed flat against the chest and not in the pendant position. The author claims that, by this method, the duration of treatment is very much shortened. The new part of the treatment claimed consists in the firm compression. Neither principle nor method are new.

Dr. J. G. Clark, of Baltimore, reports a "Cystoma Ovarii Glandulare Associated with Hydrops Polliculi." The article is illustrated with three cuts of the tumor, which was removed at the Johns Hoskins Hospital.

Dr. W. D. Porter contributes a paper on the

Management of the Third Stage of Labor.

His plan is a slight modification of the well know Crede method. As soon as the child is born the uterus is grasped with both hands, but no compression is made until one or two pains have occurred. With each pain compression is made, but not with enough force to make the woman complain. When the placenta is felt to have slipped into the vagina an antiseptic finger is passed into the vagina and hooked into the placenta, pulling it

* "Operative Experience with Ectopic Gestation."

gently out, while the other hand makes pressure on the uterus from above. The procedure would seem to have no special advantage over the older method.

Dr. W. W. Jaggard reports a case of "Thorapagus." The monster was composed of two relatively equal female forms, disposed face to face, and confluent at the anterior aspect of the thorax and abdomen. Labor lasted about eight hours, one and one-half hours being consumed in the extraction which required considerable force. Patient recovered.

Dr. S. Marx, of New York, reports a "Case of Accidental Hemorrhage During Labor." Dr. Mary Almira Smith reports a successful case of "Porro-Cæsarean Section," which was performed for a deformed pelvis, rendering natural birth impossible.

This number concludes with a memorial notice of the late Professor A. Reeves Jackson.

THE THERAPEUTIC GAZETTE.

The two more important articles of the December issue of the *Therapeutic Gazette* are "The Surgical Treatment of Appendicitis and its Limits" by Dr. W. E. Ashton and "The Medical Treatment of Appendicitis and its Limitations" by Dr. James Graham. These two articles were the subject for discussion at the Clinical Meeting of the Alumni of the Jefferson Medical College. Dr. Stark offers a paper, "The Creasote Treatment of Tuberculosis." These observations are based on a personal analysis of numerous cases. Dr. Kelly's "Treatment of Pneumonitis with Digitalis" will be read with some interest.

THE PRACTITIONER.

The Practitioner comes to us for December with three articles. The most important of these is "The Dietetic and Medicinal Treatment of Rheumatoid Arthritis" by Dr. John K. Spender.

THE GLASGOW MEDICAL JOURNAL.

Dr. Buchanan's paper,

A Case of Puerperal Fever, illustrating the Mode of Infection and the Infective Agent,

says, in discussing the source of the infective agent, that there is a deep-rooted belief that this is conveyed in most cases to the patient; and no doubt it is very often transmitted from other cases of puerperal fever, but it is probable that in a considerable number of cases the patient herself is the source of the infection. For the streptococcus pyogenes, which is always present in these cases, may be cultivated from mucuous surfaces apparently healthy. He, therefore, believes that this microbe is present in the vagina before labor. It may be introduced into the uterus before or after labor. Moreover, he further states, there is a *possibility* of infection from an "old unilateral salpingitis." Mr. John McGregor's article "The Epidemic of Cholera in Paris" and three small papers read before the *Glasgow Pathological Society* complete the December issue.

EDINBURGH MEDICAL JOURNAL.

In December's number Mr. Milton offers a "few words" about the pathology and treatment of "Lupus"—before the tale is told quite a lengthy article appears. Dr. A. G. Miller's paper,

Excision or Arthrectomy of the Knee Joint,

states that by the terms excision and arthrectomy is meant that operation, exclusive of amputation, by which all the diseased tissues are removed, with the best possible results to the patient in the shape of a useful limb. He says that experience has taught him that, to get a satisfactory result in strumous joints, it is necessary to remove the whole of the diseased synovial membrane. His method in operating is, after reflecting a semilunar flap of skin well above the patella, to cut through the tendon of the extensor of the thigh a little above the patella, and also through the fibres of the vasti, internal and external. In this way the synovial membrane is exposed. It is then easy to push up the muscular substance, draw down the thickened synovial membrane, which comes off the periosteum readily, and then to cut at its attachment round the articular surface of the femur. In this way four-fifths, or thereabouts, of the synovial membrane is removed in one mass with the patella imbedded in it. Those portions of the membrane that cover the ligaments are then removed by the use of the Lister sharp spoon. The ligaments should be scraped till they appear clean and white. They are then cut through to permit of complete flexion of the joint, and the operation is completed by the removal of a sufficient amount of bone. There seems to be one fact further to consider in the review of this paper, and that is, the removal of the patella, which, he states, is not an object of his operation, but is a necessary part, for it comes away in the centre of the synovial mass. He does not consider the removal of the patella a disadvantage; because (1), it is often diseased; and, (2), if the resulting limb be thoroughly anchylosed and rigid the function of the patella is gone, and the straight limb looks neater without it.

"Some Practical Results of the Investigation of Cholera in Germany," by Dr William Russell completes the list of communications of any merit.

THE DUBLIN JOURNAL OF MEDICAL SCIENCE.

Of the five papers offered in the December number possibly the most important one is an address by Dr Hamilton, President of the Section on Surgery in the Royal Academy of Medicine in Ireland, on "The Surgery of To-day." He gives an exceedingly interesting and instructive account of the growth of surgery from the time when bleeders, cuppers, and leechers were in vogue to the placing of surgery on a tripod of three solid and enduring feet—anæsthetics, antiseptics and experimental research.

SELECTED FORMULÆ.

Emulsion Castor Oil.

℞ Castor oil..... 1 oz.
Syrup rhubarb..... 4 drachms.
Alcohol..... 4 drachms.
Essence peppermint..... 2 drops.

Mix, and shake well together. The taste of the oil is completely disguised.

—*Phar. Era.*

Liniment for Neuralgia.

℞ Chloroform..... ʒvi.
Sulphuric ether..... ʒi.
Spirits camphor..... ʒiii.
Tinct. opium..... ʒiss.

M. Sig.—Soak a small piece of flannel with the liniment, and apply over the painful part.

—*The Doctor.*

To Clean Cistern Water.

Add two ounces of powdered alum and two ounces of borax to a twenty-barrel cistern of rain water that is blackened or oily, and in a few hours the sediment will settle, and the water will be clarified and fit for washing.

—*Tex. Health Jour.*

Serous Diarrhœa.

℞ Pulv. opii..... gr. i.
Plumbi acetat..... gr. ii.
Camphoræ..... gr. i.

M. ft. Pil. no. 1.

—*H. A. Hare.*

For Removing Warts.

A most successful means of removing the ordinary wart, whether situated on the hands or elsewhere, is as follows:

℞ Acid salicylici..... g. xxx.
Ungt. aquæ rosæ..... ʒ ss.

M. S. Apply twice daily for two days, after which the growths being softened, they should be removed by a dermal curette, and by using these means you can safely say that the wart will not return.

—*J. Abbott Cantrell.*

For Small Hemorrhoids and Pruritus Ani.

℞ Hydrarg. chlo. mitis..... gr. xx.
Cocaine muriat..... gr. x.
Petrolati..... ʒi

M. ft. ung.
Sig. Apply as directed.

An Ointment for Hemorrhoids.

℞ Hydrochlorate of cocaine..... gr. xviii.
Sulphate of morphine..... gr. iv.
Sulphate of atrophine..... gr. iv.
Tannic acid..... gr. xviii.
Vaseline..... ʒi.

This ointment is to be applied to the hemorrhoids.

—*L' Union Med.*

Tape Worm.

Treatment.—Fast patient eighteen hours, and purge during the time. Then give hourly, wineglass doses of pomegranate decoction, made as follows:

℞ Fresh Pomegranate Bark..... 2 ounces.
Aquæ Puræ..... 2 pints.

Boil down to one pint, strain and use.

It is necessary to get the head in order to establish a permanent cure.

—*The Doctor.*

For Frost Bite.

℞ Ol. lavandulæ
Acid. carbolic..... āā fʒss.
Olei oliv..... fʒy.
Unguent. plumbi
Lanoliui..... āa ʒx. M.

Ft. ung. Sig.—Apply topically.

—*Lassar, Med. News.*

Habitual Constipation.

℞ Extract physostigmatis
Extract belladonnæ
Extract nucis vomical..... āā gr. ¼.
Aloin..... gr. ½.

M. ft. Pil.

—*Prof. R. Bartholow.*

Coccydynia.

Whitla recommends the following suppository employed at bed-time.

℞ Ext. belladonnæ..... ¼ grain.
Ext. hyoscyami..... ¾ grain.
Iodoform..... ¼ grain.
Ol. theobromæ..... 20 grains.

Nervous Cough.

℞ Acidi Hydrocyanic Dil..... 1 drachm.
Tinct. Sanguinariae..... ½ ounce.
Syr. Senegae..... 4 drachms.
Aquae Lauro-cerasi..... 7 drachms.
Spr. Tolu..... 2 ounces.

M. Sig. From ten drops to a teaspoonful every four hours, according to the age of the patient.

—*The Doctor.*

Painless Dilatation of the Cervix Uteri.

For this purpose, Le Fort recommends:

℞ Iodoform..... ʒiii.
Powdered cocaine..... gr. lxxx.
Sulphuric ether..... ʒiii.

Make a solution, and wet a laminaria tent with the same. This may then be introduced into the uterine canal, and dilatation obtained without causing pain.

—*L' Union Med.*

Detection of Pus in the Urine.

Drop into the specimen of urine enough tincture of guaiac to give it a milky appearance, and heat it a few minutes to 100°F. If pus is present a blue tint will develop. Otherwise, the urine may be passed through a white filter, on which is then allowed to fall a few drops of tincture of guaiac, producing, if pus is present, a distinct blue discoloration.

—*Ex.*

Treatment of Gonorrhœa.

Dr. W. J. James, of Cleveland, Ohio, has employed the following injection with excellent results in the treatment of a case of chronic gonorrhœa, where solutions of sulphate of zinc, nitrate of silver and bichloride of mercury proved inefficient, and he has derived equal benefit from it in acute cases.

℞ Boracic acid..... ʒiss.
Tincture of iodine..... ʒii.
Glycerine..... ʒi.
Distilled water q. s. ad..... ʒiv.

M. Sig. To be used as an injection every morning and night.

He would like other physicians to give this formula a trial.—*Med Bull.*

Solution for the Treatment of Chancre.

DU CASTEL is stated to use the following solution in the treatment of chancre, by *L'Union Medicale.*

℞ Carbolic acid..... gr. xv.
Alcohol (90 per cent.)..... ʒiiss.

Make a solution, and with a small pledget of cotton or wool touch the surface of the chancre. A light touch is generally sufficient. Cicatrization usually readily ensues.

—*Ther. Gaz.*

Catarrh, Acute Nasal, with profuse watery Secretion.

℞ Tinct. Aconiti Radicis
Tinct. Belladonae..... āā ʒij.
Tinct. Apii deodoratae..... ʒ iv.

M. Sig.—10 to 12 drops in water every three or four hours.

—*W. H. Bricker.*

For Asthma.

Bartholow recommends:—

℞ Potassii iodide..... ʒ iij.
Ext. belladonnae fluid..... f ʒ j.
Ext. lobeliae fluid..... f ʒ ij.
Ext. grindeliae fluid..... f ʒ ss.
Glycerini..... f ʒ iij. M.

SIG.—A teaspoonful as required.

Transfusion Fluids.

The following are given in the *Prescription:*

1. Billroth's.

℞ Sodium phosphate..... gr.iij.
Sodium carbonate
Ammonium carbonate.....āā ℈j.
Sodium chloride..... ʒj.
Alcohol..... mclx.
Dist. water..... q. s. ad ʒxx.

M.

2. Little's.

℞ Sodium phosphate..... gr.iij.
Potassium chloride..... gr. vj.
Sodium carbonate..... ℈ij.
Sodium chloride..... ʒj.
Dist. water.....q. s. ad ʒxx.

M.

3 Walter's.

℞ Sodium bicarbonate
Calcium chloride
Potassium chloride.....āā gr. vj.
Sodium chloride..... ʒj.
Distilled water.....q. s. ad ʒviij.

M.

For use, dilute 1 fl. oz. of this solution with water at 120°F., so as to make 16 fld. oz.

Dr. Stark, *Therapeutic Gazette*, in concluding his paper on "The Creasote Treatment of Tuberculosis," submits the following *resume:*

First.—Creasote is no longer an innovation or a fad, but a drug which has come to stay as an antitubercular remedy.

Second.—Creasote is particularly valuable in the earlier stages of tuberculosis.

Third.—Its administration must be in moderate doses for a prolonged period.

Fourth.—That it is a safe and reliable prophylactic in the condition that is usually described as pretubercular anæmia.

Fifth.—It should be administered in combination with approved adjuvant remedies.

There are several easy and palatable methods of administration. The following prescriptions are ordinarily employed by me, the daily doses being dissolved in some alcoholic or vinous mixture, as whiskey or sherry wine.

℞ Creosoti (beechwood)..... mxlv.
Glycerini..... ʒi.
Aquæ destil..... ad ʒii.
Dose.— ʒi t. i. d.

℞ Creosoti (beechwood)..... ʒi.
Tinct. gentian comp..... ʒii.
Dose.— mxv t. i. d.

℞ Creosoti (beechwood)..... ʒss;
Bismuthi subnitrat..... ʒi.
M. et f. in capsul. no. xv.
Dose.—One every four hours.

"Which side should I sleep on, doctor?" he inquired. "In winter or summer?" asked the doctor, rubbing his chin thoughtfully. "What's that got to do with it?" exclaimed the patient, half angrily. "A great deal," responded the doctor, mysteriously. "I don't see it." "Of course you don't," said the imperturbable; "if you did you wouldn't be here asking me questions about it." "Go ahead, then," said the patient, sitting back resignedly. "Well," continued the doctor, "in winter, when it is cold, you should sleep on the inside; but in such weather as this you should sleep on the outside, in a hammock with a draught all round it, and a piece of ice for a pillow. Two dollars, please."—*Med. Record.*

Man, born of woman, is of few days and no teeth. And indeed it would be money in his pocket sometimes if he had less of either. As for his days, he wasteth one-third of them. And as for his teeth, he has convulsions when he cuts them. And as the last one comes through, lo! the dentist is twirling the first one out; and the last end of that man's jaw is worse than the first, being full of porcelain and a roof-plate built to hold blackberry seeds. —*Burdette.*

Polite Doctor (cautiously)—"Your husband is suffering from overwork or excessive indulgence in alcoholic stimulants —it is, ahem! a little difficult to tell which."

Anxious wife—"Oh, its overwork! Why, he can't even go to the theatre without rushing out half a dozen times to see his business partners."—*Judge.*

PERISCOPE.

MEDICINE.

Tendon Reflexes.

The following classification of tendon reflexes by Dr. William C. Krauss (Buffalo Med. and Surg. Jour.) will be found useful:

Exaggeration of Tendon Reflexes.	Organic Disease.	Spinal Cord.	1. Myelitis 2. Amyotrophic lateral sclerosis. 3. Paraplegia spastica. 4. Multiple sclerosis. 5. Syringomyelia and hydromyelia. 6. Hematomyelia and hematorrhacis. 7. Spinal tumors. 8. Pachymeningitis hemorrhagica interna. 9. Pachymeningitis cervicalis hypertrophica. 10. Brown-Sequard's spinal paralysis. 11. Arthritic muscular atrophies.
		Brain.	1 Hemiplegia. { Cerebral apoplexy. / Cerebral embolism / thrombosis. / Acute encephalitis 2. Hematoma. 3. Hydrocephalus 4. Senile dementia.
	Functional Disease.		1. Hysteria. 2. Epilepsy. 3. Neurasthenia. 4. Paramyoclonus. 5. Tetanus. 6. Psychoses. 7. Infectious processes.

Abolition of Tendon Reflexes.	1. Neuritis. 2. Looomotor ataxia. 3. Poliomyelitis anterior. 4. Spinal muscular atrophies. 5. Hereditary ataxia (Friedreich.) 6. Chorea molle. 7. Chronic ergotism. 8. Diabetes mellitus. 9. Traumatism.	Simple. Toxic. Endemic. Infective.
Abolition and Exaggeration.	1. Meningitis. 2. Hementia paralytica. 3. Idiocy.	Spinal. Cerebral.

Congenital Syphilis.

Erlenmeyer (*Zeitschrift f. klin. Medicin*, xxi, 3 u. 4, p. 343) has reported seven interesting cases of congenital syphilis which he has studied in their relations to certain diseases of the nervous system. He expresses the view that late forms of congenital syphilis, so-called syphilis hereditaria tardia, may appear later than the twelfth year—that is hereditary syphilis may remain latent more than twelve years. Puberty, traumatism, and febrile affections may afford the necessary stimulation to arouse into activity a latent congenital syphilis. The law of Colles, that the mothers of children congenitally syphilitic through the fathers, is not without its limitations. Mothers that have given birth to congenitally syphilitic children may become syphilitic, though not necessarily. Immunity to syphilis is not identical with infection with syphilis. The law of Kassowitz as to the spontaneous gradual attenuation of the intensity of the syphilitic hereditary transmission is not absolute. Children born late may be infected in more intense degree than those born previously. Hereditary syphilis may alternate with the sexes; thus, if after the birth of a congenitally syphilitic child a non-syphilitic child of different sex is born, it is not proved that the capability of hereditary transmission through the father is exhausted. In arriving at a conclusion all the children must be considered. Anti-syphilitic treatment of the parents exerts a most favorable influence upon subsequent children. A form of cerebral disease development characterized by unilateral convulsions and lack of development is most commonly of syphilitic origin. The so-called cerebral paralysis of children and congenital epilepsy, with or without idiocy, are frequently dependent upon congenital syphilis. —*Med. News.*

Right Hemiplegia and Aphasia Following Diphtheria in a Child.

Allen A. Jones, M. D., Lecturer on Practice of Medicine and Instructor in Practice, Medical Department University of Buffalo, contributes the following to the *Medical News*:

In May, 1891, I attended Florence T., eight years old, during a severe attack of diphtheria. The local and constitutional manifestations of the disease were pronounced, but the patient passed safely through the severe stages, and in about ten days was free from pyrexia, had a clean throat and a good pulse. The child seemed so well that I ceased making daily visits. One morning, however, I was hurriedly called, and found her with complete right-sided hemiplegia and ataxic aphasia. The right side of her face was entirely paralyzed. Her mother informed me that the child was talking and laughing an hour before I was summoned.

She was not unconscious at any time. The usual evidences of pharyngeal paralysis existed. No cardiac bruit was detected. The patient's mentality seemed sluggish for a few hours subsequently to the attack, but thereafter was normal.

Her repeated attempts to make herself understood were unavailing, as she produced only inarticulate sounds. Sensation was normal, so far as I was able to elicit. The patellar reflex was very weak and alike on both sides. Headache was not present. No pain was felt in any part of the body. After the lapse of two days, she was able to extend, but not to flex, her leg. Motor power gradually returned, first in the leg and thigh, then in the hand and arm, lastly in the face and pharynx. In about six weeks the little patient was playing out-of-doors, apparently as well as before her illness.

A few days ago I went to see her, and was struck by her frail appearance. She has grown very little, if any. She is very thin. Her eyes are large and her pupils dilated. No areas of anesthesia were found. Her patellar reflexes on both sides were almost imperceptible. Her sister states that the child has always spoken slowly since her illness. Her grandfather states that she has never been the same since, but is weak in body and mind.

Jaborandi in Hiccough.

Nobel and Stiller (*Centralbl. f. Klin. Med.*, 1892, Nos. 32 and 42) respectfully refer to the good effects produced by jaborandi in hiccough. Nobel's patient was a man suffering from influenza, and the infusion of jaborandi was used. Nobel draws attention to the fact that, notwithstanding the presence of some cyanosis, the drug had no ill effect upon the heart. He refers to other recorded cases, and adds that it remains to be proved which constituent in jaborandi brings about the good results. Stiller says that he has long used pilocarpine (10 drops of a 1-per-cent. solution three or four times a day) in hiccough of nervous origin, and that it is the best remedy known for this condition. He does not employ it in the reflex hiccough of severe abdominal disease and peritonitis. At times, and especially in hysteria, only improvement or temporary cessation in the hiccough has been obtained, necessitating the further use of the drug. Stiller says that the good effects of jaborandi are due to pilocarpine.—*Med. Age.*

Gout in a Child Eleven Years Old.

Marboux (*Lyon Medical*, 1892, No. 43, p. 264) has reported the case of a girl, eleven years old, in which, after a brief period of malaise, sore-throat, and difficulty in swallowing, pain, redness and swelling appeared at the metatarso-phalangeal joint of the right great toe. On the following day, the symptoms subsided with the abruptness with which they had appeared, some discoloration, pain, and swelling, however, persisting. A day later, the great toe of the left foot became similarly involved. Forty-five grains of sodium salicylate were administered in twenty-four hours, and decided improvement followed. There was no doubt from the mode of onset, from the appearance of the affected parts, and from the progress of the case, that the condition was gout. There was no family history of gout on either the father's or on the mother's side. The father had, however, eighteen months previously, had an attack of the same kind as the child. The child did not suffer from migraine or from gastric disorder or from cutaneous eruptions, nor had menstruation occurred.—*Med. News.*

Expectant Treatment in Typhoid Fever.

Dr. Arnot Spence details the results from this plan in three hnndred and twenty-three cases of typhoid fever (*Med. Rec*). Upon terminating his article he says: In conclusion we can say that of our cases nearly four per cent. died as the result of admission in a moribund state; that over three per cent. died of the accidents incidental to the intestinal lesions, as hemorrhages, perforation, and peritonitis; that 1.5 per cent. died of complicating pneumonia; that 6.8 per cent. died of the typhoid poison itself and its resulting exhaustion. That the death-rate was higher among the females than the males, and that the lowest mortality was in those cases of an age between fifteen and twenty years.

It is not likely that any treatment can be devised which will prevent absolutely such occurrences as intestinal hemorrhages and intestinal perforations, and therefore we shall have those to contend against. A treatment which may possibly antidote the specific poison of typhoid fever without lowering the vitality of the patient will be, in accordance with our present theory, the one to reduce its mortality.—*Wkly. Med. Rev.*

Treatment of Morphinism.

Obersteiner individualizes strictly in the treatment of the morphine habit. Beginning with the average daily dose, he withdraws it as rapidly as the patient can stand it. When the dose has been reduced to a few centigrammes, caution is necessary, as even a slight reduction is then badly borne. At this stage warm baths of from 5 to 15 minutes' duration, followed if necessary by the cold shower or cold pack for one-half hour to two hours at a temperature of 78° to 86° F., are often of benefit. Alcohol in liberal quantities often gives relief. Cocaine has no other use than to modify the symptoms, and should only be used when these become violent, say twenty-four to forty-eight hours after the last dose of morphine; it is always given by mouth in doses of 0.05 to 0.1 gramme, never exceeding 0.5 gramme per day, it should be reduced in a few days, and never continued longer than five or six days. Nutrition must

be improved by all possible means. If collapse occurs, morphine must be resorted to. Patients with cardiac troubles should not be subjected to complete withdrawal.—*Wien. Med. Presse.*

SURGERY.

Radical Cure of Femoral Hernia.

Salzer describes a new method of radical cure of a large femoral herniæ. He objects to any attempt to bring together the margins of the ring by sutures, as the resistance of the fibrous structures would very probably cause local gangrene and sloughing. The plan of closing the canal by cicatrical tissue, either by removing its fatty and glandular contents, or by inserting foreign material, is also open to objection, as the new tissue thus produced is apt to become absorbed. His method consists in first removing the sac, and in the next place, in closing the external orifice by a flap formed by the fascia covering the pectineus muscle. This flap, the free convex margin of which is divided downwards, whilst its upper portion remains attached to the muscle, is turned upwards and fixed by sutures to the middle third of Poupart's ligament. In this way the septum crurale is replaced by a tough and resistant layer of fibrous tissue. The thickness of the pectineal fascia, it is stated, varies in different subjects, but the membrane is most likely to be found sufficiently resistent in old persons, and in those who have for a long time worn a truss for femoral hernia.—*Brit. Med. Jour.*

Significance of the Subjective Cerebral Symptoms in Middle-Ear Inflammation.

Dr. H. Knapp (*Archives of Otology*) says:

1. *Transient headache, nausea, vomiting,* and *dizziness,* in acute cases, indicate meningitic irritation. These cases almost all recover with or without mastotomy, only a few exceptional cases of fatal termination being on record.

2. *Persistent headache, nausea, vomiting,* and *dizziness* especially when the discharge from the ear diminishes, signify transition of meningitic irritation into real meningitis, and demand surgical interference—paracentesis of the drum membrane, especially the membrana flaccida when bulging, or opening of the mastoid after Schwartze or Kuster.

3. The *above symptoms* with *delirium, stupor, impediment of speech, chills, spasms, drowsiness,* and *coma* signify fully developed intracranial suppuration. In the majority of such cases it may be difficult or impossible to discriminate between thrombo-phlebitis, extradural and cerebral or cerebellar abscess. The special diagnosis and localization, when strengthened by valuable objective symptoms, such as painful swelling and hardness of the internal jugular vein (sinus thrombosis), localized pain spontaneous or on percussion of the skull (abscess), a fistula in the cranial bones (extradural suppuration), may justify, even demand, surgical interference, namely, opening the posterior cranial fossa to ligate and cleanse the lateral sinus, or opening the posterior or middle fossa to liberate the extradural accumulation of pus, or opening the middle or posterior fossa to evacuate an encephalic abscess. Of all these varieties a certain, though small number of cases (seventeen) is known in which the diagnosis was correctly made and the operation successfully performed.—*Am. Lan.*

Clinical Classification of Hip-Disease.

In a consideration of coxitis Dr. Robert W. Lovett divides the trouble clinically (*Boston Med. and Surg. Jour.*) into four types. These four types are:

1. The Destructive Form, where the disease is rapid, severe, but little influenced by ordinary treatment; extensive infiltration of the soft parts takes place, and in most instances the disease passes on to a fatal issue.

2. The Painful Form, where pain is a prominent symptom, and exacerbations are common.

3. The Quiet or Painless Form, where pain is an unimportant factor or is entirely absent.

4. The Transient or Ephemeral Form, where the symptoms are mild and the course of the disease is run in a few months.

1. The Destructive Form—The type of hip-disease which he would place in this class occurs most often in children of tuberculous inheritance and poor vitality. Its onset is rapid and painful, often excessively painful. There is, almost from the first, much thickening of the trochanter and peri-articular tissues. The general condition is rapily impaired, and abscess formation takes place early. One abscess follows another with profuse discharge through sinuses which open widely and are surrounded by colorless granulations. This type of disease most often begins as such, and is clearly a type by itself throughout. At other times, but rarely, it is superadded to one of the forms about to be described. The temperature is high, the wasting rapid, and a porky induration of the thigh ensues.—*Med. Rev.*

Treatment of Appendicitis.

1. All cases of catarrhal and ulcerative appendicitis should be treated by laparotomy and excision of the appendix as soon as the lesion can be recognized.

2. Excisions of the appendix in cases of simple, uncomplicated appendicitis is one of the easiest and safest of all intra-abdominal operation.

3. Excisions of the appendix in cases of appendicitis before perforation has occurred, is both a curative and prophylactic measure.

4. The most constant and reliable symptoms indicating the existence of appendicitis are recurring pains and circumscribed tenderness in the region of the appendix.

5. All operations should be done through a straight incision; parallel to and directly over the cæcum.

6. The stump after excision of the appendix should be carefully disinfected, iodoformized and covered with peritoneum by suturing the serous surface of the cæcum on each side over it with a number of Lambert stitches.

7. The abdominal incision should be closed by two rows of sutures, the first embracing the peritoneum, and the second the remaining structures of the margins of the wound.

8. Drainage in such cases is unnecessary and should be dispensed with.—*Med. Prog.*

NEWS AND MISCELLANY.

Salipyrin, the sale of which has been interdicted in the United States during the past year, because of conflicting proprietary interests, is now free for use in this country. (December, 1891,) *Notes on New Remedies* published a complete descriptive article on salipyrin. The product has been adopted in medical practice in Europe, and many clinical reports have resulted from trustworthy and authoritative sources. It is expected that physicians in this country will take up the remedy, and that the favorable results obtained by European physicians will be repeated here.

Dr. Mary Putnam Jacobi has been elected as president of the Neurological Section of the New York Academy of Medicine, at its last meeting to succeed Dr. Greame M. Hammond.

Mrs. Jacobi is the first female physician ever elected to the distinguished position of the presidency of a section, in the New York Academy since its foundation; now more than twenty-six years.

This is an honor deservedly bestowed on one who richly merits this unique and distinguished promotion; for though Mrs. Dr. Jacobi is no nerve specialist, her knowledge of diseases of the nervous system is deep and thorough.

It may be said, of this distinguished medical matron, that while progressive and aggressive as a writer, teacher and practitioner of the healing art, she yet preserves to a high degree, those feminine charms and graces so peculiar to the refined and cultured lady.

Dr. Thomas Lyon, the oldest and one of the most prominent physicians in Williamsport, died at his residence, December 25, 1892. His illness was of brief duration, only since the 24th of last month, up to which time he gave earnest attention to his practice as a physician, although he was in the eightieth year of his age.

He was the father of six children, of whom four are living.

The following biography of the venerable physician appears in Meginness' Historical Journal issued in 1888:

"Dr. Thomas Lyon now takes rank as the oldest physician in active practice in Williamsport, Pa. He is a son of Edward Grundy Lyon and Sarah Lyon, of English birth, and was born October 13, 1812, near the borough of Muncy, Lycoming County, Pa. He received his education at the celebrated Milton academy, when the distinguished Rev. Dr. Kirkpatrick was the principal. He studied medicine under the famous Dr. James S. Dougal, of Milton, and graduated at the Jefferson Medical College, Philadelphia, 1838. When he located in Williamsport it had less than one thousand inhabitants, and he has followed his profession without interruption down to the present day. Dr. Lyon has made surgery a specialty, though his practice is general. He is a member of the Williamsport Medical Society, of the Lycoming County Medical Society, of the Pennsylvania State Medical Society and the American Medical Association. He has been president of the city and county associations and vice-president of the State Medical Society. During the war he was a member of the medical board of examiners for army surgeons. His contributions to medical literature have been published in the transactions of the State Medical Society. In 1843 he married Elizabeth R., daughter of Joseph R. Priestly, Esq., of Northumberland, and great-granddaughter of Dr. Joseph Priestly, the eminent chemist and discoverer of oxygen. Dr. Lyon, although in the fiftieth year of active practice, is still hale and vigorous, and gives promise of many more years of service."

ARMY AND NAVY.

FROM JANUARY 8, 1893, TO JANUARY 14, 1893.

The leave of absence granted First Lieutenant Samuel R. Dunlop, Assistant Surgeon, U. S. Army, is still further extended to include January 31, 1893.

The resignation of First Lieutenant Samuel R. Dunlop, Assistant Surgeon, U. S. Army, has been accepted by the President to take effect January 31, 1893.

The order directing Major Robert M. O'Reilly, Surgeon, U. S. Army, to proceed to Washington, D. C., and report for duty as Attending Surgeon, is suspended until further orders.

Lieutenant Col. Charles R. Greenleaf, Deputy Surgeon General, U. S. Army, is de-

tailed as a delegate to the Eleventh International Medical Congress to convene at Rome, Italy, on the 24th of September, 1893, and will, at the proper time, proceed to the place designated. While abroad in pursuance of this order, he will visit such points in Great Britain, France, Germany, Russia, Austria, Italy, and elsewhere as may be deemed necessary by the Surgeon General of the Army, on official business, and on completion of the duty contemplated will return to his station in this city.

First Lieutenant J. D. Glennan, Assistant Surgeon, U. S. Army, having reported at Head-quarters Department of Texas, will proceed to Carrizo, Texas, and report to the commanding officer of the Seventh Cavalry sqadron at that place for duty.

Leave of absence for one month, with permission to apply for an extension of one month, is hereby granted Captain J. S. Powell, Assistant Surgeon, U. S. Army.

First Lieutenant B. S. Ten Eyck, Assistant Surgeon, U. S. Army, having reported for duty at Head-quarters Department of Texas, will proceed to Laredo, Texas, for service in the field, to relieve Captain W. B. Davis, Assistant Surgeon, who, upon being thus relieved, will return to his station, Fort Sain, Houston, Texas.

First Lieutenant Frank R. Keefer, Assistant Surgeon, U. S. Army, is relieved from duty at Fort Riley, Kansas, and will report in person to the commanding officer, Fort Stanton, New Mexico, for duty at that post, relieving Captain John M. Banister, Assistant Surgeon.

Captain Banister, upon being relieved by First Lieutenant Keefer, will report in person to the commanding officer, Fort Leavenworth, Kansas, for duty at that post.

U. S. MARINE HOSPITAL SERVICE FOR THE FOUR WEEKS ENDING JANUARY 7, 1893.

Purviance, George, Surgeon, detailed as chairman of board for physical examination of Passed Assistant Surgeon, S. C. Devan, Dec. 21, 1892.

Gassaway, J. M. Surgeon, to proceed to Gulf Quarantine on special duty, Jan. 4, 1893.

Devan, S. C., Passed Assistant Surgeon, to report for physical examination, Dec. 21, 1892. Detailed for special duty at Philadelphia, Pa., Dec. 28, 1892. Granted leave of absence for two months on surgeon's certificate of disability, Jan. 7, 1893.

Kallock, P. C., Passed Assistant Surgeon, to assume command of the service at Cincinnati, Ohio, when relieved at Boston, Mass., Dec. 21, 1893.

Glennan, A. H., Passed Assistant Surgeon, leave of absence extended sixteen days on account of sickness, Dec. 13, 1892. To proceed to New York, N. Y., for special temporary duty, Jan. 3. 1893.

Williams, L. L., Passed Assistant Surgeon, to proceed to Helena, Arkansas, on special duty, Jan. 3 1893.

McIntosh, W. P., Passed Assistant Surgeon. When relieved to proceed to Boston, Mass., for duty, Dec. 21, 1892.

Magruder, G. M., Passed Assistant Surgeon. When relieved to proceed to San Diego, Cal., on special duty, thence to New Orleans, La., for duty, Dec. 16, 1892.

Cobb, J. O., Passed Assistant Surgeon. When expiration of leave of absence to proceed to Port Townsend, Wash., for duty, Dec. 21, 1892.

Stimpson, W. G., Assistant Surgeon, to proceed to Detroit, Mich., for duty, Dec. 20, 1892.

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ORIGINAL ARTICLES.

E. H. TOWNSEND, M. D., New Lisbon, Wis.
Locomotor Ataxia 119

CLINICAL LECTURES.

JOHN B. HAMILTON, M. D., LL. D., Chicago.
Tuberculosis of the Shoulder Joint; Tonsillotomy; Tuberculosis of the Hip Joint. 122

COMMUNICATIONS.

JAS. S. CHENOWETH, M. D., Louisville, Ky.
Technique of Supra-Pubic Cystotomy 126

JOHN C. HOLMES, Cranbury, N. J.
Nursing in Typhoid Fever 128

W. C. DUGAN, M. D., Louisville, Ky.
A Case of Cerebral Surgery 130

A. O. STIMPSON, M. D., C. M., Thompson, Pa.
Ligation of the Anterior Tibial Artery above the Ankle Joint 131

J. B. CARRELL, M. D., Hatboro, Pa.
A Short Umbilical Cord 132

SOCIETY REPORTS.

The Surgical Society of Louisville 133

CORRESPONDENCE.

New York Letter. 138

EDITORIAL

Abdominal Surgery—Its Revolution 139
House Quarantine 140

TRANSLATIONS 142

ABSTRACTS 145

THE LIBRARY TABLE. 149

CURRENT LITERATURE 151

PERISCOPE

THERAPEUTICS 153
MEDICINE 153
SURGERY 154
OBSTETRICS 155
GYNECOLOGY 156

NEWS AND MISCELLANY 156

ARMY AND NAVY 156

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ORIGINAL ARTICLES.

LOCOMOTOR ATAXIA.

E. H. TOWNSEND, M. D., New Lisbon, Wis.

Locomotor ataxia is a disease due to a lesion of the sensory portion of the spinal cord, associated from its onset with disturbed action of the exodic system. It is a chronic disease, extending over a long period of years (from five to thirty), and is commonly divided into three stages. *First*, invasion; *second*, incoördination; *third*, stages of complications.

I would especially emphasize the fact of its long duration, as a case under my treatment for Bright's disease was diagnosed by a physician, called during my absence, as locomotor ataxia, though the whole duration of the sickness was less than a year. Prof. Erb, of Heidelberg, in Ziemssen's Cyclopædia of Medicine, says: "The duration of the disease is generally very considerable, and is always to be counted by years, and sometimes by decades." Cases may go on to the stage of incoördination in a few weeks; when the symptoms will abate or remain quiet for a long period.

The present name and the impulse to study the conditions of this disease were given by Duchenne, though for years, it had been known as tabes dorsalis.

When fully developed it is characterized by difficulty of walking; disturbed action of the bladder causing slow and difficult micturition; disordered action of the rectum causing constipation, with loss of visceral reflexes; followed, still further in time, by imperfect use of the upper extremities, and by impairment of the visual and auditory senses. Muscular power is not lost, but because of imperfect coördination of the muscles the error of making a diagnosis of paralysis occurs.

The parts of the cord most commonly involved, are the columns of Gall and Burdach, the disease being confined, in the first stage, to the dorsal and lumbar regions. It is only when the cervical region becomes diseased that the upper extremities are affected, and the pupils become contracted and fail to respond to light.

There are severe pains of a lightning-like character,—compared by many to the insertion of a knife or sharp instrument into the flesh of the parts,—especially of the lower extremities. The stomach, rectum or bladder may be affected and, in the early stage, dyspepsia, hemorrhoids or stone in the bladder may be thought of. These pains are common in the first and second stages, and may be present in the third. Ataxia is differentiated from rheumatism or neuralgia by the pangs being momentary in duration and, unlike the pains of rheumatism, do not attack joints, cause swelling or stiffness, but attack small local areas, usually between joints, and are not often repeated in the same spot. Nor do they, as in neuralgia, follow the distribution of nerves, nor along nerve trunks, nor have sensitive points upon pressure along the course of the affected nerve.

Again the pains of neuralgia are referred to the skin, those of ataxia to the deeper structures. Also the latter are confined mostly to the lower extremities and ab-

dominal viscera, while neuralgia and rheumatism attack any part of the body. The skin is for a short time after the attack, tender over the spots of pain, but the most common sensation is that of anæsthesia,—a feeling as if the feet were in cold water; as if the soles of the feet were covered with mud or felt; a feeling of tingling, pins and needles, or as of insects creeping under the skin. The light touch of a pin, hair, or thread may not be felt, while there is pain upon firm pressure. Delayed conduction of sensation is one of the marked symptoms of this stage. The prick of a pin, which should be conveyed to the brain in health in about one twenty-third of a second (sensation traveling, as per Flint, eighty-seven feet per second), is perceptibly delayed. Gowers cites a case, in his practice, of sensation being delayed seven seconds; in another case (Eulenberg) a delay of fifteen seconds. In many cases the pain will increase for several seconds after being felt, and will last for several seconds after the exciting cause is removed.

After a period of a few months,—or it may be many years,—comes the stage of *incoördination of muscular movements.* These are usually manifested in the gait because, as before said, the lesion is, at this stage, in the lower segments of the cord. The loss of patella reflex and ankle-clonus is now marked, although in part absent from the onset of the disease. If the disease, at this stage, involve the cervical region, there will be incoördination of the upper extremities which can be tested by asking the patient to write or place their finger upon nose, eye or ear, or to button and unbutton their clothes. While the gait is labored there is no paralysis; the power of the individual muscle remains while the power for several muscles, or groups of muscles to act in harmony is lost. One of the first things a patient notices is the inability to put his feet upon small objects or to lift them to place them upon a stair, chair or stirrup. One patient I had, complained that he could not wash his face with his eyes shut.

After a time the patient will stand with the feet wide apart the better to keep the balance. Locomotion in the dark, or the hurried crossing of a street, causes a sense of insecurity—the visual sense being necessary to direct the movements. A cane now becomes useful to preserve the balance. As incoördination increases, the power to stand with feet together, though the eyes be open, is lost. The patient now walks slowly, with determination and deliberation, with a jerky, stamping motion, the heel coming to the ground first. Movements of the legs are sometimes unexpected; the toes and foot are thrown outward, and the patient falls. The motion of the limbs in walking has been compared to the swinging motion of a tight-rope performer. The soles of the feet have become deprived of sensation, and the anesthetic condition has extended upward along the legs and thighs which may become dead to all sensation. Dr. Ranney used to teach, and insist upon this fact emphatically, that the symptom thought (by so many physicians) to be pathognomonic of ataxia,—staggering or falling when standing with eyes closed or upon walking backward, goes for naught unless joined with many other symptoms which are common; and that no test is more worthless for this special affection. A patient of his, whose feet were severely frozen, would fall because of the loss of sensation. And the condition of staggering or falling is found in hysterical paralysis, hysteria and myelitis of the posterior horns. A case of hysterical paralysis came under my notice two years since, which had been diagnosed as ataxia upon this symptom alone,—the patella reflex was present; lightning pains absent; sight and hearing abnormally acute. Intracranial diseases, such as Meniere's disease, or attacks of auditory vertigo, cause staggering. Hence, as in all cases of complicated disease, diagnosis by exclusion is the only true and safe way to reach conclusions.

A painful sensation, as of a rope or belt fastened tightly about the waist or body, is often present. This is called the cincture feeling and its location, in a measure, determines the parts of the cord involved; remembering, however, that the nerves, as they pass out of the vertebral canal below the first lumbar vertebra (the cord not extending lower than this), increase the length of their roots; the lumbar, sacral, and coccygeal nerves increasing from nerve to nerve by the thickness of a vertebra.

It is stated that in five-sixths of the cases where the eye is affected, the reflex action of the iris to light is lost.

Atrophy of the optic nerve is the most serious of the eye complications in tabes; of this complication, however, I know nothing.

There is also, in the third stage, vertigo and deafness. The functions of the other cranial nerves are not affected.

The complications are the causes of death,—ulcers; herpes; perforating sores of the foot; retained urine with ammoniacal decomposition; cystitis from use of catheter; fecal poisoning from retained feces; changes in nutrition of bones and joints. One case, which I have, has two large sores where his knees rub together, and he is obliged to keep them apart by cushions. There is sometimes vomiting in the gastric crises, of the peculiar expulsive character seen in brain troubles, —without warning and without nausea. Bed-sores, urinary troubles, and passive pneumonia in bed-ridden subjects, are frequent causes of death. As syphilis is one of the common causes of the disease, gummata, or syphilitic disease of cerebral vessels causing apoplexy, may occur. The disease itself is not fatal, many patients remaining bed-ridden for a long period of years.

Eichorst gives, in tabulated form, the more important symptoms, quoting the following authorities:

	Bernhart. 58 cases	Erb. 46 cases
Absence of patella-reflex	100.0 per ct.	98.0 per ct.
Lancinating pains	79.5 "	92.5 "
Paresis of bladder	74.1 "	81.0 "
Delayed conduction of pain	84.4 "	89.5 "
Feeling of exhaustion	92.0 "	97.9 "
Ataxia	94.1 "	100.0 "
Sexual Weakness	43.7 "	78.5 "
Swaying and tottering with closed eyes	90.2 "	83.5 "

Pathological Anatomy shows sclerosis of the whole posterior column. This explains the cause of delayed sensation, the sclerosis causing such pressure upon the sensory nerve filaments as to partially or completely destroy the axis cylinders.

Etiology.—Ataxia is found more frequently in city than in country life; in families of a neurotic tendency, manifesting such diseases as insanity, epilepsy, and degeneration of the nervous system. Exposure to cold and dampness, traumatism of spine, sexual excesses, syphilis, and some acute blood diseases are accredited causes.

There is quite a difference of opinion as to syphilis being a cause. Some contend that, if it were a factor, no particular part of the cord would be singled out, but any, or all parts would be affected alike; also, that the most energetic antisyphilitic treatment does not effect a cure, while it usually cures in paralysis from brain lesions of syphilis. Others contend that it is one of the most common causes. Hutchinson, the great English authority on syphilis, in a recent lecture, says:— "There are certain affections which appear to be related to syphilis, although not directly dependent upon it, in which it is a predisposing, though scarcely an efficient, cause. Among these I count locomotor ataxia and paralysis of the insane. We seldom see ataxia excepting in those who have had syphilis." Gowers cites fifty consecutive cases in which twenty-nine, or fifty-eight per cent. had definite histories of syphilis.

Men are more prone than women to ataxia, in the proportion of ten to one, showing something in the sex predisposes to it. Possibly due to a man's occupations; to exposure; to cold and dampness; to drink and sexual excesses; as, also, to accidents which harm the spine. It sometimes follows acute blood diseases, inflammatory rheumatism, etc. It is a disease of middle life, rarely occurring during childhood or after the fiftieth year of age.

Prognosis.—Gowers, Ranney, Horsley, and Hamilton claim that some cases can be cured, and we know the great majority can be relieved by proper treatment. If it prove fatal, it is from some intercurrent affection. The duration of the disease is undefined. Sometimes the second stage is never reached, but even with complications some cases last from five to thirty years.

Treatment.—In the first stage, if we are consulted, we should remove all known causes, such as excessive mental work, anxiety and physical fatigue, since they are harmful; and we should insist upon perfect rest. Care should be taken to avoid anything tending to depress the nervous system. If exercise be taken, it should be short of fatigue. Care should be taken to avoid jolting or concussion of the spine. Cold is very injurious, and exposure to a chill results in a rapid increase of the disease. In a medicinal way the digestion and bowels should be attended to. One of the best known remedies to aid digestion and assist the free action of the bowels and kidneys, is the

free use, one and one-half hours before eating, of from one to two glasses of hot water. It causes peristaltic action of the bowels, washes out the stomach, increases the flow of urine and the action of the skin, and soothes the terminal filaments of the nerves of the stomach. The water must be as hot as can be borne. Ergot, one drachm three times a day, combined with some of the bromides most easily taken; citrate of lithia, and, most important of all, the actual cautery, are valuable remedies. Total arrest of the disease and of pain has followed the last named procedure. When there is intense pain, hypodermic injections of morphine or the internal use of Codeine, are of service. In the second stage the bromide should be stopped. Should there be the least history or suspicion of syphilis, the mercury and chalk mixture, (which, Hutchinson says, "is the only form in which to use mercury for a long time"), which we also use in the first stage, should be continued. Nitrate of silver in pill form can be used, not pushing it, however, to the extent of staining the skin. Static electricity, cautery, and, if the bladder be affected, belladonna should be used. Hammond advises the injection of atropia. Suspension, causing separation of the vertebræ, is highly recommended, but the results have not proved as beneficial as at first reported. If there be any retained urine, the catheter should be used. The bladder should be washed out with a fountain syringe and soft catheter, which the patient can be easily taught to use. Arsenic is a very valuable remedy; used best in the form of Fowler's solution. Bed-sores and all other complications should be watched for and treated as they arise.

CLINICAL LECTURES.

TUBERCULOSIS OF THE SHOULDER JOINT; TONSILLOTOMY; TUBERCULOSIS OF THE HIP JOINT.

JOHN B. HAMILTON, M. D., LL.D., Chicago.*

TUBERCULOSIS OF THE SHOULDER JOINT: RESECTION BY A NEW METHOD: TEMPORARY RESECTION OF THE ACROMION.

Gentlemen: The first case that I shall present to you to-day is one of tuberculosis of the shoulder joint.

Tuberculosis comes to this clinic so often that it is hardly worth while for me to go into the details of the pathology of the affection further than to say, that it constitutes, roughly speaking, about ten times as many cases of disease in this clinic as come from any other single cause—that is in the form of tuberculosis of bones, joints, glands, or some portion of the body.

In the case of the patient before us we have a sinus on the anterior border of the axilla, and another one posterior to the axilla at its outer border; each of them extending directly upwards for three and a half to four inches on either side of the humerus. I cannot pass a probe directly into the shoulder joint, and yet I have no doubt that the pus in this case proceeds from the shoulder joint. This man seems generally sound, but we notice atrophy of the muscles of the arm. The right arm itself is helpless as compared with its fellow. And for nine years the patient has had these two openings, at times closing, at others breaking out and an abundance of pus being discharged through these fistulous tracts.

It can be but one thing. We might have, it is true, a foreign body, such as a projectile from a pistol, or a gun-shot wound in the head of this bone, but the history of the case shows there has been nothing of that kind. He states that about nine years ago he received a bruise on the shoulder over the deltoid muscle. But there is no apparent connection between that bruise and the existing sore, except sometimes we know that tuberculosis which is latent, is suddenly lit up, propagated and developed by mechanical

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violence, or is produced by irritation of some sort,

We are confronted with the problem today, how best to stop this constant drain of the system without seriously impairing the joint. On examination I find he is able to raise a chair with his hand. He can raise the elbow nearly to a level with the shoulder but the arm is disabled almost totally. We must plan an operation in this case which will not deprive him of the use of the arm, at the same time we must destroy the pyogenic center.

I propose then to make an exploratory operation. I shall cut down by the method proposed by my colleague, Prof. Senn, in his recent work on "Tuberculosis of Bones and Joints," making a temporary resection of the acromion. So far as I know, no surgeon has as yet performed it. We will test its feasibility at this time; make the operation, and expose the portion of the joint surface that is the probable seat of the disease.

In making a resection of the head of the femur, we take a chisel, lift up the trochanter, leaving its muscular attachment, so that when we cut off the head of the femur we can then return the trochanter and the rotation of the limb is perfect when the trochanter again unites. I have a patient, at present under observation in the Presbyterian Hospital, who can turn his toes in and out as well as he could before the head of the femur was removed. That is accomplished by preserving the muscles intact, making a temporary resection. We do the same thing in the case of the olecranon and other bones.

I shall, in this case, make a straight incision, commencing just above the acromion process, extending through the skin, passing a little backward toward the posterior border of the axilla. I shall then meet that with another incision, passing down toward the spine of the scapula. In this way I propose to fully expose the acromion process, and then make a temporary resection of that process. This should expose the capsule of the joint with the least injury to the soft parts.

Several methods of opening this joint have been proposed and practiced. There are perhaps ten or fifteen different lines of incision. All of them are planned to avoid the great vessels of the axilla; some are made on the anterior surface; some directly through the deltoid on the external surface.

I shall first locate the acromion. Locating it, we make a transverse incision just above it and then a long one just behind the acromion, passing down along the external border of the deltoid muscle. You will notice that the probe on the anterior surface passes directly upward for a distance of three and a half to four inches; there is another opening on the posterior border which passes in the same direction. So the inference is clear that the source of origin of this pus may be the shoulder joint. Please remember, that in this operation it is not proposed to detach the muscle from the bone. On the contrary we propose to preserve its bony attachment.

I now with the chisel cut through the acromion process, and you will see that the attachment of the deltoid is practically untouched. Theoretically we shall be able to come directly upon the capsular ligament and, as you will see, we shall be able to enter the joint from above. Observe that the pus cavity is directly under the acromion in this case and that I have now come upon the capsule of the joint. I shall open it and pass my finger over the joint surfaces. I must be careful, in opening the joint, not to interfere with the long tendon of the biceps, or the circumflex nerve. In order to prevent that we shall determine where the biceps is located in its groove and, in order to throw it out of its position so far as may be, we will rotate, bring the humerus across the body and enlarge the incision. The portion of bone which you see is the acromion process of the scapula which I have turned up. The pus cavity I uncover when I lift the acromion. We probably do not see the extent of the carious process, so before proceeding to the more radical method of turning the head of the bone out, I will remove the pus. The difficulty attending this operation so far seems to be lack of room to fully expose the head of the bone. I will increase the room by further turning up the deltoid flap. We are now breaking into pus cavities all about this joint. The head of the humerus is now well uncovered, or rather the external face of it is. We will separate the attachments from the glenoid cavity by throwing the arm directly across the body, then making rotation outward. The bicipital groove is now exposed to view. I shall cut the fascia and the tendon sheath so as to loosen the biceps along the groove and not cut it,

for by so doing the circumflex nerve should be thrown over with it.

Pus comes directly out of the bone the minute the chisel strikes it. We have to deal then with a case of tubercular osteomyelitis of the head of the humerus. The bone is very soft. The head of the humerus is honeycombed with pus, and so soft that the slightest touch suffices to break it down. You will see that the exposure of the joint has been perfect. Prof. Senn's theory has been carried into practice here with success so far as reaching the joint is concerned, which, of course, is the main thing.

I have now scraped out the carious bone, removed the head of the humerus and shall smooth the glenoid cavity, which seems to have been infected, pack it with iodoform gauze and then clean it out. First rub it well so as to have the iodoform fully penetrate it. Fill these surfaces with iodoform powder, so that any tubercular deposit, which may have escaped being scraped out, shall be reached by it. I now take the soft parts that are involved in the disease and scrape the pyogenic surface so as to leave the tissues exposed to view. We will pack the cavity with iodoform gauze, carefully and tightly, and leave one end projecting at the most dependent portion of the wound, so that we can remove it at pleasure, and it will at the same time serve for drainage. I shall now tie the vessels if they seem to require it, which they do not, and then bring back the deltoid and suture the acromion section which was made. It is a temporary resection. The deltoid is preserved.

This man will be able, hereafter, to raise the arm precisely as he could before the operation, which is the particular point to be gained by a temporary resection of the acromion. I passed the needle through the fascia covering the bone and through the periosteum on each side of the incision, so we are bound to bring the acromial surfaces directly in apposition. If I had this operation to do over again, I should throw back the deltoid and dissect it off from the face of bone in the beginning. This would shorten the operation one-half.

On examination of the removed bone, we find that the pus originally came from the centre of the head of the humerus. You can see it as a pulpy mass, evidently tuberculosis of the humerus. The tissues immediately about were little involved except that they afforded depots and an outlet for the pus. At the point where the drainage is inserted I shall put in temporary sutures, leaving a long loop so that they may be tightened subsequently, constituting what is termed secondary sutures. I shall now complete the operation by passing a small-sized sharp spoon into each of these original openings and scrape out the fistulous tract. The upper end of it was thoroughly done when the flap was turned up. I am satisfied that this operation will be one of the most common for reaching the joint. It is very easy of performance, and I believe it will be found to be more successful than others. The wound is to be thoroughly cleansed; the arm fixed to the side; cotton and gauze placed next to it, and then by a plaster-of-Paris roller the shoulder is fixed in position for three weeks. We may cut a fenester in the plaster if we find a rise in temperature, but if there be no elevation of temperature the first dressing will remain for a period of one week.

TONSILLOTOMY.

This child has a sore throat and a swollen tonsil. I have here the tonsillotome of Fahnestock. It consists in a ring with a double spear for fixing the tonsil and a guillotine blade which pushes through when the tonsil is fixed. It is intended for the partial removal of the gland when it becomes permanently hypertrophied. I think the surgeon is not justified in removing tonsils when swollen, and in a state of acute inflammation. But when they become permanently hypertrophied, and the condition has existed for some time, and there is no longer any probability that the gland will resume its normal size, then the surgeon is justified and should remove the projecting portion of the tonsil. I prefer in my office, when I am required to do the operation, to take a volsella forceps with the claws at the side, open the mouth, seize the tonsil, and cut it off with a curved bistoury—a more surgeon-like instrument than this machine I am now using.

TUBERCULOSIS OF THE HIP JOINT—TEMPORARY RESECTION OF THE TROCHANTER.

I have not recently examined this child and I do not know, therefore, what opera-

tion will be performed, but we will find out as soon as the examination is completed.

She has been in the hospital several times; sometimes having extension apparatus applied, at other times remaining in bed with weight and pulley. But all of that kind of treatment, which is simply palliative and intended to hold the joint surfaces apart while the child is under tonics and other means of treatment, has been without avail. She now comes back to the hospital unable to walk, unable to move the hip without severe pain—so painful in fact that I propose to conduct the examination under anæsthesia, perform whatever operation is required and can be done at this time.

On turning the child on the side you will notice a fistula posterior to, and a little below the trochanter. We will take the probe and ascertain the direction of the fistula. I find that the probe passes directly into the joint. There is, therefore, only one way to treat this joint successfully at this stage, that is, to make an opening into it, remove either the soft parts by arthrectomy, or resection of the bone, or both, according to the extent of the disease. If this girl were an adult instead of a child, there would be no objection to performing a typical resection, but in children an atypical one should be the rule.

I will content myself by cutting down upon and performing a temporary resection of the trochanter. We simply cut down upon it by linear incision, with the chisel lift it up with its muscular attachments, and the neck of the femur is fully exposed. We are then able to reach the joint. I make my incision directly over the trochanter, slightly curved, but passing deeply down to the bone. I have separated the soft parts from the bone as much as is required to make a linear incision to the trochanter. I have separated the trochanter from the femur with the chisel and the incision is directly on a level with the upper surface of the neck of the femur. I shall turn the trochanter directly upward, which gives complete access to the capsule of the joint. I now separate the neck of the femur from its attachments, open the capsule and expose the joint. Now, by rotating a little, I can put my finger directly into the opening and feel the amount of erosion that exists, with the head of the bone still within its socket. If it be not too great, I prefer to do but little else than to make an opening into the joint and provide for the injection of iodoform.

Remember what I have previously said about resection in children. We avoid them whenever possible, as we stop the growth of bone by resection; whereas, if we can perform an arthrectomy, or, by gouging out the carious portions of the bone preserve the joint, we will have accomplished very much more for the child.

I find a sinus with a roughened surface on the face of the bone, and I shall gouge out this opening first, as the bone is quite soft. I shall be able to do it without using the knife. This is being done subperiosteally. I am passing a gouge longitudinally along the neck of the femur to the head of the bone, and removing the carious surface, which I will soon have complete access to, piece by piece. The pus, which is very plentiful here, exudes from the bone in several places, and we have, as in the shoulder case, evidence of its commencement in the medulla of the bone and its cancellous structure. I find that the acetabulum itself is involved, and the rim of the acetabulum will have to be scraped out. This I am doing. The process is tedious. In the removal of these fragments of bone you will find it expedient to use the finger as a guide, keeping it on the fragment while the instrument (the sharp spoon) is being fixed. In this way you avoid unnecessary damage to the soft parts, and it enables you to have control of the operation at nearly all of its stages. The specimen which I show you, as now removed, consists of half of the side of the neck of the femur and half of the head. You will see how the disease has progressed around the head of the bone. The white, glistening portion is the articular surface of the head of the femur; the eroded portion of the other side is where tuberculosis has eaten into the head of the bone. We now irrigate the joint as there is a great deal of eroded surface; the wound is dusted with iodoform powder, and, as before, iodoform gauze is inserted for drainage. There is a sinus underneath the bone in the soft parts extending into the cavity of the acetabulum, which I thoroughly scrape with the sharp spoon. I now bring the trochanter back into its place, leaving a drainage of gauze from the most dependent portion of the

wound which passes directly into the joint. We sew the trochanter into position with very heavy catgut. I pass a needle through the periosteum, the fascia and sheath of the muscles attached to the trochanter and through the same structures on the shaft of the femur, thus bringing the parts into perfect apposition. The power of rotation of this child's thigh when the trochanter and bone unite, which will be in about three weeks, will be as perfect as before the operation. Care should be taken that no tension is put upon the stitches that can be avoided. The limb should be fixed in a poposition which brings the bone together without tension. The packing, which is being inserted, is in the intermuscular septum where the pus formed during the progress of the disease, and which has been thoroughly scraped and irrigated. You will notice there has been very little hemorrhage. Hemorrhage is much less when the trochanter is resected than in the other operation.

The dressing in this case will be precisely as in the former one. The parts about the wound are to be well cleansed; iodoform gauze and antiseptic absorbent cotton applied, and a plaster cast over all.

The history of these cases after resection of a joint, performed as these were, is generally one of uninterrupted convalescence. Occasionally we have a sinus formed directly in the tract of the wound, due, undoubtedly, to some pyogenic reformation,—some bacterial colonies which were left in some undisturbed pocket at the time of the operation. But in the majority of cases we do not expect any result other than steady progress toward uninterrupted convalescence. It is a crippled limb, but it was this before the operation was performed. We have stopped the pus formation. More than that, it differs from an ordinary resection in this particular: after the old methods of resection, the limb hung like a flail; while it might be as powerful as before, especially after resections of the head of the humerus, yet the power of rotation was completely lost; and in many instances the power of elevating of the elbow to the level of the shoulder was lost. In our case of temporary resection of the acromion, I have no doubt the power will be as perfect as before the operation.

COMMUNICATIONS.

TECHNIQUE OF SUPRA-PUBIC CYSTOTOMY.

JAS. S. CHENOWETH, M. D., Louisville, Ky.

I would like to present as a basis for discussion, a few points relative to the technique of supra-pubic cystotomy. I have been impressed, in all of these operations that I have seen, with the importance not only of a strict regard for the indications to be met in each individual case, but also with the importance of a strict attention to detail in meeting them, if we would receive the greatest possible good from our operation.

Viewed from the standpoint of the technique, I think we can properly divide our cases into four general classes.

The *first* class includes the recent cases of stone and foreign bodies and small pedunculated growths, where the bladder is only moderately or not at all diseased.

The *second* class includes the neglected cases of the first class, where severe inflammatory changes have taken place in the bladder walls.

The *third* class includes the cases requiring removal of tumors or prostatic outgrowths, or prolonged drainage for cystitis.

The *fourth* includes that not inconsiderable number of old neglected strictures of the urethra in which a guide cannot be passed for the perineal operation, and retrograde catheterization of the urethra is desired.

In the first class, no especial preparatory treatment is requisite beyond emptying the bowels by laxatives and enemata, irrigating the bladder with boric acid solution and shaving and cleansing the abdomen.

The anæsthetic—preferably chloroform—being administered, an oval rubber bag with the tube attached is introduced into

the rectum. By means of a soft catheter and a hand syringe the bladder is filled with warm boric or Thiersch solution, the quantity being regulated by the known capacity of the bladder and the sense of resistance imparted to the hand; this is retained by an elastic band around the penis and a clamp on the catheter. The rectal bag is now slowly and carefully injected and the bladder may be felt in contact with the abdominal wall above the pubis. A three inch incision in the median line, just above the pubic bone, carried down between the recti and pyramidalis muscles exposes the prevesical space and the presenting bladder wall covered by a thin membrane containing more or less fat. This fat, which contains the peritoneum, is rolled up from the symphysis, care being taken not to disturb the lateral attachments of these loose tissues. This little manoeuvre is often much abused, and operators, in a frantic effort to avoid the peritoneum which is in no danger if the bladder and rectum have been properly injected, so loosen up the attachments behind the symphysis and around the neck of the bladder that urinary infiltration and consequent cellulitis is inevitable.

The bladder being exposed, any large veins on its surface in the line of proposed incision are ligated with fine catgut by means of a sharply curved needle; and a strong silk ligature is passed deeply into the wall of the bladder, which is incised just below by a clean thrust of the knife. This ligature serves to hold the bladder in contact with the abdominal wall after the incision, and diminishes the risk of tearing loose the anterior attachments while punching around in the bottom of the pelvis trying to find the opening in the now collapsed organ.

The incision in the bladder should be of sufficient length to permit of the easy removal of the foreign body without tearing and bruising the edges of the cut. Guided by the ligature the finger is quickly introduced and the body removed. After thorough irrigation the bladder, being still held up and steadied by the ligature, is closed with numerous interrupted sutures of over prepared catgut carried down to the mucous coat; or in some cases, an oval surface may be denuded around the incision and the broad, fresh surface thus formed united by two rows of continuous suture. A small drainage tube is laid over the line of suture and brought out of the lower end of the external wound, which is closed down to this point. A soft catheter introduced through the urethra and tied in, completes the operation.

In the second class, with inflamed, contracted bladders, effort should be made to cleanse them and at the same time gradually dilate them to a reasonable capacity before operation, and unusual care should be taken against rupture when the final distension is made under anæsthesia. The operation is completed as in the former class up to the point of closing the bladder wound.

It being evident that the wound of an acutely inflamed and contracted bladder will not unite primarily no attempt should be made at closure, but drainage should be free. This may be done by a tube carried to the bottom of the bladder and retained by fastening to the skin, or by a perforated hard rubber plate with straps carried around the abdomen. The end of this tube may be left long and drain into a vessel at the bed side. If the tube causes much pain and is forced out it is often impossible to replace it; this seems to be of little moment as far as the bladder is concerned, as it will drain and can be thoroughly irrigated without it, but the patient is kept continually wet by the flow of urine.

In the removal of tumors or prostatic outgrowths from the bladder by the suprapubic method, the rectal bag should be distended as far as safety will permit, thus forcing up the base of the bladder and greatly facilitating the work.

The Trendelenburg position is also of great service here, bringing the parts well into view. After the removal of these growths there always arises the necessity for thorough drainage for a considerable length of time, and, in the case of old cystitis, the drainage may have to be permanent. This drainage, in my experience, cannot be well accomplished without fastening the bladder to the abdominal wall. The tube almost invariably slips out, or has to be removed on account of clogging or becoming encrusted with urinary salts, and it is often impossible to replace it through the long sinus running down to the bladder. This sinus contracts rapidly and, unless the obstruction at the bladder neck has been perfectly removed,

the cystitis will return, and not only will there be no benefit derived from the operation, but a small discharging sinus will add misery to an already miserable being.

In opening the bladder for retrograde catheterization of the urethra in impermeable stricture the rectal bag should not be used. The bladder is usually diseased and distended and the danger of rupture is great. A little care in stripping up the prevesical fat is all that is needed to avoid the peritoneum. The opening should be small and, as a rule, immediate suture practised, free drainage being kept up through the perineal opening until union is complete.

NURSING IN TYPHOID FEVER.

JOHN C. HOLMES, M. D., Cranbury, N. J.

To the country physician the nursing of typhoid fever is of particular interest, as he so frequently has considerable difficulty in obtaining a competent nurse in fever cases.

There is no disease in which, during the entire course, every organ of the body is so liable to become disordered as in typhoid fever. Therefore good nursing and particular attention to all of the minor details is absolutely essential.

When a case of typhoid fever occurs in a family, the first step to be taken is to isolate the sick person as much as possible from the rest of the household; this is necessary for two reasons, first, for the comfort of the patient, and secondly, for the safety of the other members of the family.

A large room should be selected, and one which will afford means of perfect ventilation.

The windows should be raised about four inches, and a board fitted tightly at the bottom, thus giving a free access of air over the top of the lower sash, and avoiding all draft.

This ventilation should be continued day and night, even in the coldest weather. A uniform temperature should be maintained from 60° to 70° F.

In winter an open fire place or grate is to be preferred to any other method of heating a sick room. Let the patient have as much covering on the bed as is necessary, but keep up the free ventilation at all seasons of the year; fever patients are not liable to take cold.

Do not admit visitors at any time during the course of fever—mental quiet is as necessary as bodily rest. Remove all carpets and curtains—in fact all that is required in a "typhoid room" is the bed, one chair, a small table and an alcohol lamp. Have a large covered clothes basket in an adjoining room, in which all soiled linen may be at once placed and immediately carried out of doors; wash these clothes separately from the clothing of others, and direct the wash water to be emptied at a safe distance from the house and well.

The sheets should be changed every day, and this can be done easily by folding the under sheet close to the patient, spreading one side of the bed over, and then gently lifting the person over on the clean side, at the same time removing the soiled and smoothing out the clean sheet.

The aphorism, "cleanliness is next to godliness," is indeed truly hippocratic, and most assuredly applicable in typhoid fever.

Twice a day wash the face, hands and limbs and, if advisable, even the entire body with lukewarm water to which add a little alcohol; in cases of extreme depression, alcohol or whiskey may be used alone; a sheep's wool sponge is the best for use in washing the body of a sick person.

All excretions from a fever patient should be received in a previously disinfected vessel and at once removed out of doors, at least one hundred yards from the well and house, and there buried—a fresh layer of sand spread over each time.

Now in regard to disinfectants, avoid carbolic acid on account of the unpleasant odor and the tendency to nauseate the sick. Platt's chlorides is one of the very best disinfectants; it is perfectly odorless and can be procured at a very reasonable price. Chloride of lime, used according to the printed direction on the box, is always good. A solution of copperas can be used to wash out all vessels which receive the

excrement, and it is a good plan to leave some of this solution in the urinal and bed-pan after they have been cleansed and returned to the sick room.

As to light—do not keep a sick room in darkness (unless there should be brain complications) in fever or any other disease—light and sunshine are as essential to the sick as to the well.

If a lamp is used at night, do not turn the wick down, on account of the gas which will be sure to be thrown off, but shade the light so that it will not disturb the patient.

One of the worst torments of fever is thirst, therefore give plenty of cold water; little at a time but frequently. A swallow of water will moisten the mouth just as well as will a glassful.

Drink should be given even when it is not asked for, as fever patients need just as much, and sometimes even more than when in health. Mineral water, lemonade and thin barley water are all exceedingly grateful.

Keep ice in a covered vessel wrapped in a woollen cloth and in the next room, and always break the ice with a pin. If coal is used for fuel, put it in paper bags, and place it on the grate—thus you avoid a noise which is sure to attract the attention of the sick.

Never attempt to use any force, or even to argue with a fever patient in order to have one take either food or medicine; the sick are frequently very unreasonable, and if the mind is disordered it is worse than useless to endeavor to reason with them. When anything is refused put it aside at once and appear to be perfectly satisfied. In five minutes offer it again, and nine times out of ten it will be taken without any complaint.

Never say to the sick, "now it is time to take your medicine," or "will you take the medicine now?"—do not use the word medicine. Prepare it in silence, take it to the bedside, and say, gently but firmly, "swallow this please." It is not to be wondered at, that invalids have a feeling of disgust come over them when they hear the rattling of spoons and see the nurse making elaborate preparations for the advent of each dose of medicine. I have seen the patient vomit at the sight of the glass and the noise of the spoon.

Always remember that a sick person can never be spoken to too kindly; typhoid fever patients are frequently in a dreamy state of partial consciousness from which a harsh word would arouse them to the wildest frenzy.

The nurse should be a veritable sphinx as far as all conversation is concerned. Questions should be answered in a monosyllable, without any remark or comment.

Always pretend to remove any imaginary thing from the room if so requested by the patient; never declare that "it is nothing"; you can not convince one with a disordered brain that an hallucination is only imagination.

Nourishment should be given at regular intervals, and the physician should not only give explicit directions as to the kind and quantity, but should make out a "time table" for both medicine and diet.

The patient should never be allowed to have anything to eat or drink without the permission of the doctor. There is no disease in which the slightest indiscretion in regard to diet may prove so suddenly fatal as in typhoid fever—it requires but little to turn an almost evenly balanced scale one way or the other.

Do not allow the patient to rise for any purpose whatever from the beginning of the disease until convalescent; many fatal cases of syncope have occurred upon assuming an upright position even for but a moment.

Watch fever patients closely; never leave them alone—many apparently perfectly manageable cases have jumped from a window, or committed suicide when left alone for a few moments by the nurse.

It is best always to have two nurses, one by day and one for the night. Never trust the nursing to kind friends or good neighbors—who, while they may be overflowing with sympathy, have not the routine of the case, and therefore can not do as well as a regular attendant.

I have had seven cases of typhoid fever where I have found a new nurse on duty almost every day, and have frequently been unable to ascertain the exact condition of the patient during the night, as the nurse "had gone home to get a little sleep," and left no other report of the case than this, "they were about the same as usual."

If milk is used, keep it outside of the sick-room until it is required; never allow milk to stand in a typhoid room of all

others; prepare the exact quantity needed and use it at once—this direction should also apply to all meat-broths.

Do not tell a fever patient any unpleasant news,—give them to understand that everything is going along nicely.

Always speak encouragingly and hopefully, giving the sick the benefit of every doubt. There is no disease in which a person can sink so low, to the very border and in the shadow of the grave, and still recover.

Never "give up" a fever case, as changes for the better may occur when least expected, and even under the most unfavorable circumstances. I have seen cases which I feared would not live six hours, and have had the satisfaction of seeing them recover. Avoid all those people who make a business of "*nussin*," they believe they know it all and are far more liable to overdo matters than really to neglect. Secure an intelligent man or woman,—one who has either an established reputation or a diploma from a training-school.

Good nursing is, indeed, the *sine qua non* in typhoid fever—without it medicine is of little value. I would prefer an intelligent nurse and no medicine whatever, rather than the attendance of an entire faculty and an ignorant or careless nurse.

Human life is far too precious to trust in the hands of unskilled persons; to err at such times is but too frequently fatal, and ofttimes the cause of life-long regret, which, while it may be without true cause, nevertheless may leave the unpleasant thought that perhaps something was left undone.

The constant attention to all of the *little things* always gives the best results in nursing.

A CASE OF CEREBRAL SURGERY.

W. C. DUGAN, M, D., Louisville, Ky.

I have a case of cerebral surgery that I would like to mention. A lady about fifty years of age has had great pain in the head for eight or ten months, and it has steadily increased. She has been treated by a number of physicians on various lines and she has grown steadily and rather rapidly worse. Her hearing was at first but slightly involved, but latterly to such an extent that she could hardly hear at all. During the last few weeks I am confident there has been marked impairment of intellect.

I saw her for the first time several months ago, and then did not see her again for about two months; meantime her physician asked Dr. Dabney to make an examination, and he reported double-choked disk, the right more marked than the left. Later she had partial paralysis of the right leg, twitching of the right side of the face and incomplete loss of sensation of the right arm.

Diagnosis of tumor was made, its most probable location being in the left side about the upper part of the fissure of Rolando. She had two convulsions during this time, whether unilateral or bilateral I am unable to say, but they were rather severe and were followed by considerable stupor. Exploratory operation was advised for the purpose of finding the tumor, the understanding being if it could be removed it would be done.

A very large semi-circular incision was made over the left parietal bone, the flap turned down leaving the periosteum intact. After going through the periosteum and turning it back separately, we took a large sized trephine expecting to take out a large button, but found it slow work, the skull being very thick. I then decided to take out a smaller sized button. The bone was removed and the membrane bulged up almost half way through the skull, very tense and feeling almost like wood. I then took a chisel and mallet and cut out the entire two inches of bone, the size of the original trephine. The tension was so great that the membranes came up almost on a level with the outer part of the skull. The dura was then incised and to my very great surprise,—and perhaps I should say my chagrin,—the brain just swelled up, almost like quicksilver, through the incision in the dura. There was a mass of cerebral tissue as large and thick as your finger pressed through the

opening in the dura, and the constriction was so great, and the tension from within so much, that it produced intense engorgement. The dilemma was not one to be envied, I assure you. I did not know how to close the dura. Knowing that there must be something to account for the great pressure, I explored with a hypodermic needle and found no fluid. I then took a groove director and passed it down to the ventricle, and found a large quantity of fluid in the left cavity—at least three ounces, and perhaps more. As the fluid flowed through the groove, the brain settled back in its place, and at the conclusion of the aspiration I was able to pass my finger around the dura, palpating the brain so as to ascertain whether there was a tumor anywhere. No tumor was discovered. I then thought best to pass the groove director through the septum to the other ventricle to see if any fluid existed there. This was carefully done, but no fluid found. The dura was then closed, and the scalp sutured, no drainage being used, and the patient dressed and put to bed. She reacted well from the operation, there being no shock.

She has had some little trouble since with loss of speech, but she is able to articulate some sounds distinctly and intelligently. She has suffered very little pain since the operation, and has been doing very well. Instead of finding a tumor we discovered an accumulation of fluid in the left ventricle, the pathology of which I am unable to give. The fluid seemed to be perfectly clear, but whether it was tubercular or otherwise I am unable to say. The future of the case is purely one of conjecture; I am not prepared to say what the outcome will be. Her physical condition is good; the operation was done one week ago, and she sat up to-night and is suffering no pain. The paralysis has been relieved, but her hearing has not returned. I cannot help believing that the trouble will return and that the end is not very far off.

The paralysis was relieved immediately after the operation. Sensation now seems to be hyperesthetic. Before the operation, as she could not hear, her family would write messages on paper and she would look at it for a long time and eventually she would understand it. She would wait four or five minutes before answering a question, showing that her intellect wa greatly impaired.

I left the bone out for two reasons: First, it could not have been replaced, as, after taking out the button with the trephine, the opening was considerably enlarged with the chisel; further I would have left the button out anyway so as to have the advantage of that amount of lack of resistance, and, in event of the fluid re-accumulating it can be aspirated with less trouble. The opening left in the skull, as nearly as I can judge, was about two inches in diameter. The only hemorrhage experienced was from separation of the dura. If I had not explored the brain, I would never have been able to have brought the dura together.

LIGATION OF THE ANTERIOR TIBIAL ARTERY ABOVE THE ANKLE JOINT.

A. O. STIMPSON, M. D., C. M., Thompson, Pa.

Frank Allen, aged about thirty-three years, while chopping in the woods on the 9th of December, 1892, accidentally made a deep cut with an axe in his right leg, about one and one-half inches above the ankle joint, and on the outer side of the leg. The cut was apparently not a severe one, the incision being only about one and one-half inches long. He had on at the time a pair of felt boots (such as choppers and woodmen generally wear) and the axe, which was broad bitted with angular corners, having a very thin and sharp edge penetrated the flesh much deeper than one would naturally suppose.

After the accident his companions got him to the house as soon as possible, and resorted to ordinary domestic means to arrest the hemmorrhage, by bandaging and the use of "puff-balls" as a local styptic.

No further difficulty was experienced with the wound until the next evening, when it commenced to bleed profusely.

I immediately applied the rubber tourniquet over the popliteal space, using as a compress a rubber "anti rattler" for wagon shafts. This controlled the hemmorrhage completely. I then tied the injured artery (anterior tibial) with an iron dyed silk ligature, But the operation, having been done by lamp light, was not a success. On December 11th (at night again), a messenger came for me in great haste, saying that "Frank was bleeding to death." I hurried to the house and found that he had indeed lost so much blood that he was very weak. I immediately applied the tourniquet in the groin. This checked the bleeding at once, but I concluded then I would wait until daylight before ligaturing the wounded artery.

As soon as there was light enough, with the aid of a neighbor, I enlarged the incision upward toward the knee, and with a No. 11 iron dyed silk ligature I tied the artery the second time, using a sailors knot to prevent the loop from slipping.

I had no trouble from hemmorrhage after that, but a wound remained that could only heal by second intention, or by granulation. In treating the granulating surface I used iodoform gauze, dry calomel and campho-phenique.

A Short Umbilical Cord.

J. B. CARRELL, M. D., Hatboro, Pa.

On Dec. 28th, 1892, I delivered a woman, æt 38, of her fifth child. There was nothing unusual about the case until I attempted to move the infant from its moorings.

The child was drawn so closely to its mother that it was difficult to tie the cord; in fact the second ligature was applied by pushing up the external genitals. When the cord was cut it disappeared up the vagina. I could not wrap the cord about my finger to make traction on account of its being too short; so I effected removal of the placenta, which had been expelled into the vagina with the expulsion of the child, by hooking my finger into the body of placenta and making external pressure with the other hand. Upon examination I found a cord seven and one-half inches long.

This is not the shortest cord on record. The shortest I find mentioned was two inches. Cazeau and Tarnier say: "The cord varies greatly in length at term; generally it is from twenty-one to twenty-three inches; some have been observed, however, from six inches to five feet; others, still more rare have reached five feet nine inches in length. I delivered a woman with the forceps, June 23rd, 1841, in whom the head had been retained above the superior strait, and where the cord was only nine inches long. These extremes are very rare; nevertheless, they are not the utmost varieties the cord may offer in its extreme limits, for it has been known not to exceed five inches, and has even been as short as two inches." With the expulsion of the child the placenta was expelled from the uterus into the vagina. Had such not been the case, the short cord would have interfered with the delivery of the child.

An exchange says that a new and simple method of preventing bed-wetting by children is proposed by Dr. Von Trenton, who simple raises the foot of the bed so that the child lies on an incline with the opening of the bladder uppermost. This is based upon the theory that the urine escapes from the bladder while the child is asleep. The remedy is simple and worth trying; the only difficulty is that most children have a natural fancy for rolling about in bed and will cause themselves to sleep with the head at the elevated end of the bed as often as otherwise. —*N. West Lan.*

Sugar in the urine is no more a proof of diabetes than albumen is of Bright's disease; and it is a great mistake to base the diagnosis upon the one point alone. The presence of the sugar may be due to transient nervous conditions, to temporarily defective action of the liver, to excess of sugar in the diet, as when a new clerk goes into a candy shop, or to a disturbance of the general system like that caused by the retention of the milk in woman who have suddenly stopped nursing. Gout, syphilis, heredity and renal disease may also cause glycosuria without diabetes. Ord, of London, says that while he has not frequently met with carbuncle or phthisis in glycoruria, they are common in true diabetes.—*North Lan.*

SOCIETY REPORTS.

THE SURGICAL SOCIETY OF LOUISVILLE.

Stated Meeting of December 12, 1892.

The President, Dr. A. M. Cartledge, in the Chair.

Dr. W. C. Dugan reported "A Case of Cerebral Surgery" (Page 130).

TWO CASES OF STERILITY FOLLOWING GONORRHŒA.

Dr. E. R. Palmer: A young man, having been married three years, came to me a year ago with gleet and stricture of the urethra, with the statement that his wife was barren; that he wanted to be cured; that his wife also had trouble which he believed she had contracted from him, and that he wanted me to treat her also.

I operated on him for stricture by the Otis' operation, treating him for a long time and, at the same time treating his wife, who had chronic vaginitis and chronic endo-cervicitis with a deflected, fixed uterus,—a condition that we nearly always find where a woman had contracted gonorrhœa and the deeper membranes had been invaded.

This man was entirely cured of his gleet and stricture. His wife was very promptly relieved, her vaginitis disappeared, the discharge from the uterus ceased and she was in excellent condition. I saw the gentleman a few days ago, and he said he was happy to report that he was the father of a fine girl.

No. 2. About six months ago, when the pregnancy of the patient above referred to was well assured, another man employed by the same corporation, came to my office with his wife and asked me to make an examination, try to determine why his wife never had any children, and treat her for barrenness. I told him this was rather out of my line, and suggested his consulting another physician. He said he had been married two years, and his wife had never conceived. As I had treated Mr. and Mrs. So and So, who had been married three years and the wife was pregnant, he wanted me to see what could be done in his case. I made inquiries as to whether either of them had ever had any trouble of a venereal nature, and he replied that they had not. I took them both over to Dr. Anderson's office and they were examined separately.

The woman was a magnificent specimen of womanhood, weighing about 150 pounds, apparently in perfect health, vagina and womb normal in position and size. In other words her entire sexual apparatus was in a perfectly normal condition.

I then took the man into an adjoining room and he confidentially gave me the history that several years ago he had contracted gonorrhœa with double epididymitis, but stated that he had been cured for a long time before marrying. I instructed him to have connection with his wife and bring me some of the semen for examination. He did so and it was found to be utterly devoid of spermatozoa, proving beyond all question why his wife had never become pregnant.

It is stated that in ten cases of barrenness the woman is at fault seven times, the man three.

Dr. Jas. S. Chenoweth read an essay The Technique of Supra-pubic Cystotomy (Page 126).

DISCUSSION.

Dr. W. O. Roberts: I have had considerable experience in the operation of supra-pubic cystotomy for stone, for cystitis, for tumor and for draining the bladder in old cases of enlarged prostate. In some cases I have used the bag and in others operated without it. I believe that we can get along just as well without as with it. Where we want to operate on the prostate, I think we can be better aided by an assistant introducing his finger into the rectum and pushing the prostate upward and forward, than with the bag. I have never found it necessary to tie any vessels in the bladder wound. As soon as the bladder is emptied, distension of the vessels will disappear and the hemorrhage will cease. I reported, I think to this Society, some time ago a very interesting case, a patient of Dr. Palmer's, where I operated for tumor of the bladder by the

supra-pubic method. The tumor in this case obstructed the flow of urine through the urethra; after closure of the supra-pubic wound the man was able to pass water by the urethra, throwing it three feet from him. This is not the usual result in such cases. As a rule they do not recover the power of completely emptying the bladder through the urethra.

Dr. E. R. Palmer: I am forced to believe that the modern operation of supra-pubic cystotomy will eventually find its proper place to be where it has been fully determined that the old-fashioned operation through the perineum is not admissible.

With reference to the case just spoken of by Dr. Roberts, I believe that probably the perineal operation with curetting would have relieved the man with less after trouble. I believe that in the majority of cases where operations of this sort are done on the bladder, the tone of the bladder is so permanently destroyed that we cannot expect to restore the normal action of this organ through the natural passages. In the case Dr. Roberts has spoken of the result was all that could be desired, but I was impressed in that case, as I have been in a number of others I have witnessed, that if any man thinks it is a comparatively simple operation to go into the bladder above the pubes, he is the worst fooled man that ever took a knife in his hand. It has impressed me as being one of the most tedious, difficult and deceiving operations that a man can attempt. For my own part I do not expect to do, in my particular line of work, a great deal of this form of surgery; but, when I do it, my own preference is to go into the bladder where it is possible, through the perineum. I have no doubt that men with larger experience and with greater statistics to back them up than I am possessed of, are anxious, ready and hopeful in the matter of preference of supra-pubic cystotomy, notwithstanding the almost certainty of more or less permanent fistula which is one of the serious objections to the operation. I would always exclude the feasibility of operation through the perineum before resorting to supra-pubic cystotomy.

Dr. W. C. Dugan: I have enjoyed the paper and consider it a most excellent one in the main, but I cannot refrain from taking issue with Dr. Chenoweth in reference to the use of the rectal bag, also the use of water in distending the bladder. In the first place I do not believe that the rectal bag is of any service whatsoever in supra-pubic cystotomy, and that if the rectal bag is indicated at all, it is after the bladder has been opened. It might be well enough to insert the bag if you are operating on the prostate; or on the base of the bladder; or for tumors where you want to bring the prostate up as high as possible. There is always danger of rupturing the bladder and rectum by distension and pressure from use of the rectal bag. I think it has been demonstrated beyond a doubt that we cannot elevate the fold of the peritoneum by distending the rectum with the rectal bag. You simply push the prostate and bladder up toward the symphisis. I do not believe the bladder should be distended until after we expose the prevesical fat; it being easier in my opinion to cut down upon an empty bladder rather than upon a full one. After you have made your incision, exposing the prevesical fat, have your syringe ready and let the assistant fill the bladder with fluid and you can feel the fold of the peritoneum slip under the finger. When this sensation is felt, then have the catheter tied around the penis and the bladder opened.

While supra-pubic cystotomy is attended with considerable danger I do not think the mortality should be over five per cent. in young, healthy subjects. In old men and in patients with chronic disease of the genito-urinary passages, it must necessarily be higher.

I think the doctor's precaution of suturing the bladder to the abdominal wall by a silk ligature is an admirable one and should not be overlooked. Suturing the bladder is a very important matter if we use silk. It is difficult to get the edges so accurately brought together that the ends of the suture will not fall through. I operated upon a patient some time ago and had this misfortune to follow. A piece of the suture material dropped into the bladder through the incision, around which a calculus formed requiring a second operation.

In regard to drainage: I believe in these cases there is nothing equal to iodoform gauze. I think it is better than a tube and gives the patient much less pain. It is necessary to be very careful to have your gauze well protected and all the little threads removed, wrapped with silk so

as to be doubly sure that you are not going to leave in any of the threads to cause the formation of calculi. I do not think the operation of supra-pubic cystotomy advisable in impermeable stricture of the urethra; I have yet to see a case that could not be relieved by simple operation either by external urethrotomy without a guide, or by the perineal method. I agree with Dr. Palmer that supra-pubic cystotomy is an operation of considerable magnitude, and was somewhat surprised to hear Dr. Hunter McGuire state, at the meeting of the Southern Surgical and Gynecological Society, that the operation was as simple as the opening of a boil; I am sure he made a mistake in that. At any rate it does not appear so to me. It is an operation which requires an accurate anatomical knowledge and perfect surgical technique.

Dr. W. L. Rodman: I am very much disposed to accept the steps of supra-pubic cystotomy as given by Dr. Chenoweth as being the proper ones. I believe that in the majority of cases it is better to use the rectal bag. It has been demonstrated that you lift the peritoneum and bladder higher by use of the bag than you can possibly do without it. I believe that the danger in using the rectal bag has been over estimated. It seems to me that it is a very weak bladder that is going to be ruptured by use of the rectal bag. I have always used the bag and shall continue to do so in every instance. Instead of ligatures I use two tenacula to bring the bladder well into view, and think this is the ideal way of lifting the bladder up into the abdominal wound. I do not like the use of ligatures for this purpose; they tear out and do more damage to the bladder wall than do tenacula properly used. Their introduction is also more tedious. I agree with Dr. Roberts in regard to hemorrhage; it nearly always ceases as soon as you have opened the bladder.

I further agree with the essayist in the position taken concerning supra-pubic cystotomy for so-called impermeable stricture. It occurs to me that supra-pubic cystotomy, while not an easy operation by any means, is both easier and safer than perineal section without a guide. I have a case now that I propose to do a supra-pubic cystotomy on next Wednesday or Thursday. It is a case of impermeable stricture that I have tried to enter twice and, rather than do a perineal section without a guide, I shall perform supra-pubic cystotomy. I am very frank to say, however, that I have never in my life failed to get into the bladder through the urethra when the patient was put under chloroform. After putting the patient just mentioned under the influence of chloroform, if I fail to enter the bladder through the urethra, then the supra-pubic operation will be resorted to.

Dr. H. H. Grant: I was very much surprised to hear Dr. Dugan begin his discussion by stating that supra-pubic cystotomy was so simple as to be readily done without the use of any artificial means to raise the bladder up; afterward to state that the mortality was only five per cent, and then to criticise Dr. Hunter McGuire for teaching medical students concerning an operation as serious and grave as this one is. I think it is a very serious matter for surgeons of reputation and ability to educate young men to believe that any surgical operation can be done without great danger, or without considerable skill at the best to avoid this danger; that every means possible to make it easier and safer should be employed: and that no methods, which have received the approval and support of experienced and competent surgeons, should be discarded or condemned without some definite reason therefor.

I am firmly persuaded that in all operations of supra-pubic cystotomy that I have witnessed, and there have been quite a number, without the bag the peritoneum has appeared in the wound. I am also convinced that it is rarely seen where these means are employed.

A little difference is always to be found in the resistance of the tissues of the live and the dead body. The majority of experiments which have been employed to determine how far the peritoneum could be pushed up have been upon the dead body. Ability to push up the peritoneum and bladder by artificial means experience has shown to be very considerable, and, in many cases, the peritoneum has been found to be pushed three inches above the pubis —so far that there is no possibility of injuring it in the first incision—and easily pressed out of the way by the finger without any fear of wounding it. Certainly no danger can be experienced in distending the rectum with eight ounces of fluid in a rubber bag. When the plane which sup-

ports the prostate and the rectal base of the bladder has been raised toward the level of the pubic arch by distension of the rectum, the peritoneum will be proportionately higher as a matter of simple mechanics, and when the bladder is afterward filled with the solution the fold of peritoneum rises much more readily.

Dr. W. C. Dugan: Right at this point I would like to ask the speaker if he believes that eight ounces of fluid in a rubber bag will lift the bladder up three inches?

Dr. H. H. Grant: I have already stated that in all the operations I have seen, and there have been more than a dozen of them, in which the rectal bag was used, the peritoneum did not appear in the wound. If the peritoneum is not pushed up three inches, it is certainly pushed up some. And with this precaution the peritoneum has not appeared in the wound where the rectal bag was properly distended and the bladder was distended afterward. Upon the dead subject I have done this operation over one hundred times, and occasionally the peritoneum would be encountered. In a few instances it dropped down quite upon the pubis; but in these cases it was not pushed up either by distension of the bladder or distension of the rectum.

Of course in my remarks I simply refer to my experience, and my observation is coroborative of the wisdom of taking all means to prevent any possible wounding of the peritoneum, which is almost certainly a fatal accident unless the peritoneum be promptly closed up without any chance of infection. I look upon the operation, proper care being taken, as one comparatively easy to do. I look upon it as even less attended by risk than the operation which Dr. Palmer prefers, so far as the operation itself is concerned.

With respect to the hemorrhage which occurs after this operation, so far as the simple operation is concerned, I agree with Dr. Roberts that it is rarely troublesome. In operations upon the bladder for the removal of tumors, and especially in prostatic troubles, the danger of hemorrhage is very considerable, and it has been the practice of some to cauterize the bladder with the hot iron or thermo-cautery A safer step is to tampon the bladder with gauze fixed by a thread drawn out through a perineal wound or through the urethra as suggested by Keyes. There are a number of points with respect to the management of this operation presented in the paper that meet my approval thoroughly. It should be the object of every surgeon to avoid injury to the peritoneum in operations of this character, and I believe we ought to employ every possible means in order to prevent injury. The details of the technique which Dr. Chenoweth has given us are both interesting and adequate; are much upon the original modifications by Petersen and, having stood the test of time, are to be relied on.

Dr. W. C. Dugan: I am a little surprised at the position taken by Dr. Grant in reference to my former remarks. I did not mean to criticise Dr. Hunter McGuire, except in as far as his statement that "supra-pubic cystotomy is as simple as opening a boil." I agree with Dr. Palmer that it was an operation of considerable magnitude. Now the point I wished to make was, the best means of avoiding the dangers in this operation were by taking the precautions which I have mentioned, i. e., not to distend the bladder until you expose the prevesical fat, and then in order to locate the peritoneum after the bladder is exposed. If you will follow the precaution now being practiced by the best surgeons in America and Europe, there will be no danger of wounding the peritoneum; that is, to first distend the bladder, then slip your fingers well down toward the neck, lifting the bladder up into the palm of your hand until you feel the fold of the peritoneum slip above, then the bladder can be incised without danger.

One other point: I am greatly surprised to hear Dr. Grant state that he can lift the peritoneum three inches by an eight ounce rectal bag. I think experiments have proven pretty clearly that the bladder can be distended with water and afterward distend the rectum and it simply forces the prostate forward but does not perceptibly increase the space between the fold of the peritoneum and the symphisis.

Dr. A. M. Cartledge: It has been my observation that whenever a new operation comes up in surgery everybody is writing upon its technique, etc. After a while it dies down, and all the time it is being subjected to the crucial tests of experience and practice. After a year or two you will find some of the most interesting points concerning it have never been

brought up. I think this is notably the case with supra-pubic cystotomy. It was largely written upon a year or two ago, but I have hardly seen it mentioned within the last eighteen months. I perfectly agree with almost everything Dr. Chenoweth has said in reference to the operation. I have myself paid considerable attention to the matter, have done several operations, and witnessed others. I do not quite agree with the essayist with reference to the use of the rectal bag. I believe, like Dr. Dugan, that the rectal bag cannot raise the peritoneal fold proper more than one-quarter of an inch. If this were the case there would be danger of rupture. I have never used the bag as I never considered it of any service. Further, the rectum is the seat of a plentiful nerve distribution. I think it was proven several years ago that often very alarming syncope resulted from simple distension of the rectum by the speculum, and I see no reason why anything that would distend the rectum might not produce the same result. I think it would probably be the most dangerous part of the operation to tightly distend the rectum, even with a soft rubber bag.

I believe that a free incision should be made over the bladder, the prevesical fat and peritoneum can be peeled up from the bladder with the fingers until everything is out of the way, then the necessary incision can be made in the bladder for removing any growth or stone that may be found. I think the supra-pubic operation preferable to the perineal method for impermeable stricture; in fact, in my opinion the perineal operation without a guide is a most dangerous procedure, and useful only as a life-saving measure in the cases of larged prostate of the old.

Dr. Jas. S. Chenoweth: I use Petersen's bag in these operations because I believe better results can be obtained with it than with any other. I recommend the use of the rectal bag to raise the peritoneum, but more especially to raise and steady the base of the bladder which greatly facilitates operation on this organ.

I am sorry there was no more discussion upon the question of drainage, and whether the bladder should be fastened to the abdominal wall or dropped back into the pelvis. In most of the operations I have seen, the custom has been to simply open the bladder, remove the stone or growth, and then allow the viscus to drop back into the cavity of the pelvis. This necessitates the use of a tube for drainage, which is liable to leave a small discharging sinus after the operation; especially is this the case when the operation is done for cystitis from enlarged prostate, where the obstruction at the bladder neck cannot be thoroughly removed.

Preventive and Curative Drinks and Medicines.

Put not your trust in nostrums; cholera does not "come by Providence and go by medicine," although that is a common and ignorant belief in respect to it, and many other diseases. A tried and safe preventive of the tendency to diarrhœa (which should always be checked) is sulphuric acid lemonade, made by acidulating boiled and sweetened water to taste with dilute sulphuric acid (or, as at the post-office, Dr. Waller Lewis's very palatable sulphuric orangeade.) The citric acid lemonade lately vaunted was rather inferior in value to this. The cholera bacillus, as we now know, was favored by an alkaline fluid, and did not live in acid media. An excellent and well tried preventive of the prevalent slight diarrhœa was the Vienna mixture (used in barrels formerly in hospital practice.) It consisted essentially of fifteen drops of dilute sulphuric acid to six ounces of boiled and sweetened water, to which might be added, under medical advice, ten drops of sulphuric ether and five drops of laudanum for an adult. On ice-bags, camphor solutions, and other expedients of the kind no reliance could be placed, except in skilled hands and for selected cases. Many people poisoned themselves with camphor during a late epidemie, as a precaution against cholera. Once established, and in well-marked cases of Asiatic cholera, drugs would do little to cure. The mortality of cholera all over the world and in all epidemics had defied drugs—just as severe arsenical poisoning would do—and varied according to intensity and the age and condition of the patient from forty-five to sixty-four per cent. It was eminently a case in which prevention was far more efficacious than cure.—*Ernest Hart.*

Manager. "What's the row?"

Assistant. "The two-headed boy is quarrelling over a piece of pie."

CORRESPONDENCE.

NEW YORK LETTER.*

At a recent meeting of the Practitioners Society of New York, held at the Academy of Medicine, a discussion took place between the prominent physicians present on the question of food in continued fevers. The question was of importance as it is the general belief among the profession that solid food should not be given, particularly in typhoid fever.

Dr. A. H. Smith said that he believed he had often prolonged cases of typhoid by restricting his patient to a milk diet, and that he had often noticed a decided improvement as soon as solid foods were given. He thought that fermenting and irritating drinks, so frequently given, had a more deleterious effect upon the ulcerated patches than had solid food; that solids were not in a condition upon reaching the ileum to irritate a typhoid ulcer, and that milk dilutes digestive fluids and renders them inferior as solvents.

Dr. J. W. Roosevelt said that a prolonged milk diet prolonged a fever. He mentioned cases in which the cessation of a milk diet, and the giving of stale bread and finely chopped meat, gave marked good results; a patient on a fluid diet is hungry, and hunger is pain; the giving of solids, and consequent relief of this pain, lowers the temperature which is kept up by the pain. Professor Beverly Robinson brought up the point that milk curdles in the stomach, hence part of it becomes solid; and this solid is more apt to irritate typhoid ulcers than would such foods as bouillon, beaten egg, and wine jelly, as they are not solid upon reaching the ulcers.

Dr. Robert Abbe feeds his typhoid patients peptonized milk, junket, scraped meat, baked potatoes and stale bread. He said that none of these were any more solid upon reaching the seat of the ulcers than would be milk.

Dr. W. H. Polk said that a few years ago it was the custom to keep laparotomy patients upon an exclusive milk diet for two days before and for ten days after the operation, and that many fatal cases, attributed to sepsis and shock, were due to inaction. He has noticed a decided falling off in the death-rate since this custom has been abandoned.

* * *

At a recent clinical lecture in Bellevue Hospital, Professor H. M. Biggs strongly contradicted the teachings of most pathologists regarding the etiology of diabetes mellitus. He said that the malady was in no way due to any diseased condition of the liver; that a pathological liver may cause glycosuria, but that this was in no way related to diabetes mellitis. He gave as it's cause a brain lesion from traumatism, or mental anxiety, grief, sudden fright, or mental shock of any kind. He said that heredity was a prominent predisposing cause, and that he has often noticed several cases among members of the same family.

* * *

Professor W. T. Lusk performed symphysiotomy on a patient at the Emergency Hospital a few days ago. The woman had been in labor thirty hours when brought to the hospital. An attempt had been made by an outside physician to deliver the child with forceps, which resulted in severe lacerations of the vagina and cervix. The degree of pelvic contraction was such as to forbid any attempt to deliver the child without the operation. As the condition of the mother would not permit of the severe mutilation necessitated by Cæsarian section, the choice lay between craniotomy and symphysiotomy. The latter was chosen as it presented the advantage of the delivery of a living child and involved the mother in less risk from sepsis. After the pubes were shaved and rendered aseptic, an incision was made through the mons veneris and the sympyhsis divided from below upward. Assistants held the sides of the pelvis, not allowing a separation of the pubic bones of more than an inch, thus avoiding damage of the sacro-iliac synchondrosis and the pelvic viscera. The child was then delivered by the forceps. The pubes were brought together and held in place by sutures through the soft parts and a tight bandage

* Special Correspondent to The Medical and Surgical Reporter.

around the pelvis. At the present writing the child is doing well and the mother is living. But the length of time she was in labor, the severe lacerations she received before admission and her critical condition when an operation was decided upon, give her but slight chance for recovery.

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Dr. L. A. Sayre, in a recent lecture, stated that he had exsected seventy-three hip joints. The operation is done much less frequently than a few years ago, as modern physicians are able to diagnose and properly treat hip-joint disease in its incipient stage. The venerable professor exhibited at the lecture a dozen patients on whom he had performed the operation. Most of them walked without any inconvenience and without the use of a cane or crutch; call were able to run up and down stairs and to do their work as well as any. A patient on whom he operated several years ago and removed the head of the femur and upper three inches of the shaft, recently won a prize in a skating contest held in Central Park. He said that the good results were due to the care he exercised in the preservation of the periosteum from which new bone developed and replaced the removed tissue.

***

Although the present epidemic of typhus fever is on the decline, new cases and deaths are reported every day. At present there are about thirty-five infected buildings in the city, many of which are cheap lodging houses. Cases when discovered are at once transferred to Bellevue Hospital, where they are kept out-of-doors in carefully constructed and well heated tents until their removal to North Brothers Island. The tent plan not only lessens the liability of the extension of the infection to the hospital patients, but is a sanitary measure proven to yield good results in any specific fever. There is no danger of the patient catching cold if he is not subjected to a draught; his temperature is lowered, and the poison is diluted as it cannot be in a hospital-ward or sick-room. The treatment has been to reduce the temperature, relieve restlessness, make the patient comfortable and promote nutrition. The death-rate has been about twenty-five per cent.

Cantani claims that no other agent equals tannic acid in the treatment of cholera.

Treatment of Compound Fracture.

A writer in the *Boston Medical and Surgical Journal* says that the treatment of compound fractures, during the past few years, has undergone radical changes and marked improvement, which has been brought about by two causes: (1) Thorough exploration and cleansing of the wound and antisepsis. (2) By the recognition of the importance of the physiological principle of complete rest to a fractured bone. The results from older methods in Guy's Hospital in the twenty years from 1841 to 1861, was a mortality of 28 per cent.; in the New York Hospital during a similar period there was a mortality of 48 per cent.; in the Obuchow Hospital Report of St. Petersburg there was a mortality of 68 per cent. Under modern methods Dennis reports 681 cases of compound fracture with one death from sepsis, giving a death rate of one-seventh of one per cent. The important points to be observed are: (1) That every compound fracture of the thigh, leg, arm or forearm, should be rendered scrupulously surgically clean and should be absolutely immobilized. (2) That this immobilization is conveniently obtained by the light, circular plaster of Paris washed bandage. (3) That a plaster of Paris bandage should be allowed to remain on a limb over a fortnight in the first month of treatment of a compound fracture, as backward bowing and lateral displacement can be avoided by this precaution. (4) That while pus, slough, necrosis or deformity may exceptionally occur, yet the rule is, union by first intention, and the early restoration of limbs to usefulness.

Treatment of Ringworm.

Crawford Warren, F. R. C. S. I., in the *London Lancet*, suggests the following treatment for this troublesome affection:

The affected region should first be washed with soap and warm water containing a little carbonate of soda and then well dried. Acetic acid should then be thoroughly applied with a small brush, and in the lapse of about five minutes, when the acid will have soaked into the part, an ointment composed of sixty grains of chrysophanic acid to an ounce of lanoline should be rubbed in. This treatment should be carried out daily for such a period as may be necessary.—*Prac. Mon.*

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SATURDAY, JANUARY 28TH, 1893.

EDITORIAL.

ABDOMINAL SURGERY—ITS REVOLUTION.

In the *Indiana Medical Journal* for December there appeared an article by an eminent western surgeon entitled "Abdominal Surgery—Its Evolution and Involution."

This article is remarkable more for what it insinuates than for what it says. While it is strong in many respects and offers plenty of food for thought, its animus seems to be a desire to smirch the private character of Lawson Tait and to belittle his work. It is an effort to create the impression that he and men who like him publish a low mortality in their abdominal work are, if not downright liars, at least remarkable for handling the truth with a great deal of economy.

Mr Tait's work and character have so long been open to the inspection and scrutiny of the whole medical world, his reports have been so often verified, and his results duplicated by his pupils and others in this country that any attempt at the hands of an American operator to belittle him is likely to create suspicion that somebody has a grievance.

When an operator demands that hereafter all who publish low mortalities shall be compelled to furnish affidavits and certificates that their statistics are true, it begins to look as though he might be measuring others by standards applicable to himself. Such a method of reasoning is a very fallacious one indeed. The fact that those men who publish results in abdominal work with a mortality as low as three per cent. invite the closest inspection of their work and have their operating rooms daily crowded with visiting physicians from all parts of the country, is a complete refutation of any insinuation that tin-horn blowing constitutes the chief element in their success and that falsehood predominates in what they publish. There are too many honest, earnest and closely scrutinizing physicians visiting and studying these men, who write up what they see, and that only from a laudable desire to spread the truth for the benefit of others who seek information; and who expect their patients to profit by what they gain in knowledge—there are too many jealous

observers for accusations like those which permeate the article under consideration, to prove other than boomerangs to the accuser.

If the surgeon who wrote this article will spend a little more of his next vacation in Philadelphia and less in Vienna, he can have an opportunity to see just such work as that described by a number of men whom he dubs sycophants. Then, if he be the well-spring of truth his article would lead us to infer he claims to be, he can go home, and if *he* publishes anything of what he sees, it will be couched in a far different spirit than that revealed by the evolution and involution of his late effort. He will at least be enabled to recognize the truth when it confronts him in the King's Highway.

It was Lawson Tait who revolutionized the surgery of the abdomen, and who taught us that it was not the *going into* the peritoneal cavity that produced disaster so much as the *manner* in which it was done and *what one took in with him.* His saying that he would as soon put his finger into the peritoneal cavity as into his pocket was no idle boast, but came from an honest conviction born of an experience in more than three thousand sections.

Whenever another man has added to modern surgery as many things as Tait, and has taught the surgical world as much; whenever one arises to whom suffering woman owes so much; then, and not till then, may he brand Tait a liar, if he be willing to confess ignorance as extensive and principle as unstable as the three thousand miles of water between him and the traduced.

"HOUSE" QUARANTINE.

Last week we noted the passage by the United States Senate of a National quarantine measure, which poor as it was, seemed to offer some hope of protection against foreign invasion by armies of cholera microbes. This measure, crippled as it was by passing through the mill of practical politics, was sent to the House. Whence, after the skillful and patriotic treatment at the hands of Tammany scientists in consultation with experts from Florida, Louisiana and Texas, it emerges totally emasculated. The bill as sent from the Senate was amended in the House to prevent it in any way restricting, relaxing, modifying or suspending State or municipal quarantine regulations. The elimination of this objectionable feature was accomplished by citizen Bourke Cochran, of Tammany (formerly called New York State), who discovered in it the thinly disguised intention to make the Federal authority superior to that possessed by the appointee of his liege master, His Majesty, the Dictator of Tammany Hall.

As suggested by a Representative from another State, the title should be amended so as to read "A bill authorizing the States to declare quarantine against the United States." This measure should become a law immediately, so as to permit the Burgess of any little town on the sea coast, or on a State line, to defy Federal regulations, and enforce its own effective municipal laws.

It is curious to note how the same object appears viewed from opposite sides. The legend tells us of the two knights who engaged in mortal combat over the composition of the shield, of which each had seen only one side. In this part of the country there is a growing belief that the opposition to a Federal Quarantine was largely aided and abetted by an alleged steamship and railroad combination, whose interests it would seem to have antagonized. From the point of view

of a Texas medical contemporary of undoubted honesty and ability, the bill appears to be *supported* by this same alleged lobby of steamship and railroad companies in their own interests. Thus it is that whether in support of, or opposed to this measure, the steamship and railroad companies are very considerable factors in the question. This bill will now go back to the Senate, and if it is received as an original House bill (and it surely is original enough), it may be amended sufficiently to make its meaning diametrically different, and then be considered by a conference committee. The results of this last combination will be awaited with curiosity by the Profession which, in event of an epidemic, will bear the heaviest portion of the wearisome burden, and will be made the popular scape goat for the sins of omission and commission of the Representatives of the people.

TRANSLATIONS.

RUPTURE OF THE UTERUS.*

H. Fehling, (*Klin. Vortr. N. F.*, No. 54.)

The author presents the history of a case as the foundation of his dissertation on this subject.

The case a II—para of thirty-six years, having a contracted pelvis (Conjugata vera 7.5–7.7). The first child had been small and was born spontaneously. The author saw the patient first during her second labor after a spontaneous rupture of the uturus had taken place in the anterior and lower portion of the uterine wall. Delivery was at once performed by perforation and dilatation, and the treatment consisted of passing a tampon of iodoform gauze through the vagina into the uterine opening. The size of the tear, its possible septic condition due to the blood and meconium, the persistent hemorrhage all induced the author to resort to abdominal section in order to unite the tears in the uterus. Careful investigation disclosed a second tear in the uterus; both were closed by several rows of sutures; drainage and recovery. In connection with this case F. considers the causes of uterine rupture, its symptoms and treatment.

In threatening rupture of the uterus he advises the use of chloroform and morphia as a means to reduce the too active contractions of the uterus and if possible to terminate labor by forceps or perforation. In transverse positions the obstetrician will find it necessary to first attempt, under complete anesthesia, careful version. If tetanic contractions of the uterus remain unabated, decapitation is indicated. If the rupture has taken place, prompt and careful delivery is indicated in which perforation or cephalothrypsia may become necessary. It is rarely possible to extract the fœtus by its feet through the tear. Version is in all cases of existing rupture contra-indicated. If the child has escaped entire or partially through the tear into the abdominal cavity, the only proper procedure is laporotomy in order to deliver the child and at the same time repair the injuries to the uterus. If the tears are extensive or if they should be circular, partially separating the uterus from the cervix, Porro's operation is indicated.

The question which is presented at the present time, namely, should laparotomy be the first step in the treatment of rupture of the uterus, even though the child has been extracted per vias naturales, is answered by the author in the affirmative, provided the condition of the patient will permit so grave a procedure.

If section is decided upon, the author's mode of procedure is as follows: After opening the abdominal cavity, it is first cleansed of the blood and amniotic fluid, etc., by means of the physiological solution of salt. The uterus is then raised, the wound disinfected, and an iodoformized strip of gauze passed through the wound and allowed to extend out through the vagina. The wound is now closed with three rows of sutures, respectively uniting

* Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

the decidual, muscular, and serous layers; if necessary, some superficial stitches are added; after again cleansing the abdominal cavity thoroughly the abdominal wound is closed. The iodoform gauze is removed from the vagina after twenty-four hours.

In cases where incomplete rupture has taken place, where the peritoneal covering is intact the iodoform gauze tampon into the uterus is advocated by the author, a procedure which the author preferred to the use of a rubber drain. The gauze in these cases is not removed until from the sixth to the tenth day.

Formerly more than three-fourths of the patients died as a result from this injury.

F. believes that careful suturing of the uterine wound will improve the prognosis in these cases, the same as that of Cæsarean section, since Sænger's method of suturing of the uterus has become recognized and practical.

CONTRIBUTIONS TO THE PATHOLOGY AND SURGICAL THERAPY OF CHRONIC DISEASES OF THF CŒCUM.*

F. Salzer (*Archiv. of Klinische Chirurg.*, XLIII page 101). The material used in this study has been taken from Billroth's clinic and covers a space of ten years. During this time there were twenty-five operations on twenty-three patients for chronic inflammations of the cœcum. A fistula resulting in one of the cases necessitated a second operation. The other case was a resection of the intestine for carcinoma. A return of this disease made it necessary to perform Ileocolostomy.

Among the twenty-three patients, fifteen were males and eight females.

Ten were resections for carcinoma (eight males and two females). There were four recoveries (two males, and two females). Five operations were for tuberculous ulcerations and stenoses of the intestines at the cœcum—(five males, one female). Of these there were four recoveries (three males, one female). Eight operations for fecal fistula (three males, five females). Of the five females, three recovered. Two males recovered from the operation, one of which however required a second operation owing to the presence of a fecal fistula. The third male required a resection of the colon which ended fatally. The mortality of non-malignant tumors was twenty per cent. That of malignant tumors sixty per cent. That of fecal fistulæ 57.5 per cent. The mortality was higher among men (50 per cent.) because they were seen too late, while that of the women was 22.2 per cent. Alarming intestinal symptoms existed in three cases at the time of operation. The difficulty in diagnosing between tubercular and carcinomatous growths in the appendix is very great, the microscopical investigations being the only reliable means. Of the operations there were four intestinal sutures including one lateral suture; eighteen intestinal resections, and three intestinal anastomoses. In regard to the resection of the intestines the author believes that the simple transverse section of intestines with a circular suture can be recommended also for the resection of the cœcum, with this exception, that owing to the difference in the lumen of the cut ends of the intestines at this location one would have to be cut a little diagonally. If the tumor has become fixed by the fistulæ and perityphlitic abscesses the mode of operating as well as the prognosis becomes changed. Of the whole of the eight fecal fistulæ only one was thoroughly cured, four returned and three died, while of the seventeen other cases ten were cured and seven died. The author does not approve of intraperitoneal tampons or drainage.

* Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

Traveler.—"Do you think the lynch law you have here decreases the number of murders?"

Native.—"Wall, I dunno; but it decreases the number of murderers."

"If you don't stop smoking in office hours, you'll get fired, that's all," said Wagg to his bookkeeper.

"Is that quite just to one who does his work faithfully?" asked the scribe.

"Certainly. Where there is so much smoke, there must be fire."

Ischio-Pubeotomy, or the Operation of Farabeuf.*

This new obstetric operation is described by Pinard in a communication to the Academy of Medicine of Paris. He employed it in the case of a woman thirty-two years of age, who presented herself to him with an oblique pelvis associated with an ankylosis of the left sacro-iliac articulation. Her first pregnancy had been terminated by means of basiotripsy; the second by premature labor at the eighth month; the third was an instrumental labor resulting in the death of the fetus, and almost that of the mother; the fourth was terminated by premature delivery of a dead child; and finally she came in November, 1892, again pregnant and expressing the wish to be delivered of a living child. At first it was decided to perform symphyseotomy, but the existence of the sacro-iliac ankylosis led to the belief that the gain following the operation would probably be insufficient, and it would be impossible by it to sensibly increase the dimensions of the antero-posterior diameter, which was reduced to eight centimeters and a-half. Cæsarean section appearing to offer but slight chances for the mother's recovery, the operation of ischio-pubeotomy was decided upon. According to Farabeuf, the originator of the method, this operation will permit of the passage of a head much larger than the normal, nearly a sixth larger. The technique was as follows: Labor having lasted fourteen hours the ichio-pubic ramus was divided and then the horizontal branch of the pubis on the ankylosed side five centimeters from the median line. The Tarnier forceps were then applied at the superior strait and with scarcely any traction a living infant weighing 3,970 grammes was delivered. During the traction upon the forceps there was a spontaneous separation of the two severed segments of 2.6 centimeters, and, at a given moment, of four centimeters.

The sole difficulty of the operation consists in passing the chain-saw with which to cut the horizontal branch of the pubis. With a suitable needle this difficulty disappears. Hemorrhage is almost nothing. After delivery the bony fragments come in contact and sutures for this purpose are unnecessary; the soft parts must be sutured. The after treatment is very simple.—*Le Bulletin Mèdical, Jan. 11, 1892.*

* Translated for The Medical and Surgical Reporter, by W. A. N. Dorland, M. D.

Fatal Suppuration Beneath the Shoulder-Blade.*

F. A. Treskin, (*Med. Rundschau*, 1890) Suppuration beneath the shoulder-blade is of rare occurrence, indeed, so rare that the author after searching numberless text books in the German and French Literature, was unable to find any mention made of it, except a slight allusion to it in Hyetl's Anatomy.

The case which he reports was as follows:—The patient, a marine, was admitted the 29th of July, into the Lazaretto, with symptoms of acute fever, sensations of heat and cold, headache, etc. There was present diarrhœa and the thermometer registered 38.8, and in the evening, rose to 39.5. The following day acute pains appeared in the right arm, the patient coughed, the axillary glands were swollen and painful and there was some bronchial breathing. On the fourth day the entire right side, beginning from the median line in the back was swollen. At the point where the swelling was most reddened an exploratory incision was made down as far as the ribs. There was no pus present, only a slight discharge of bloody serum. Fluctuation could not be demonstrated. Anthrax was thought of, yet the microscopical examination did not corroborate it. The temperature now became sub-febrile, the pulse became slower until the fifteenth day when the patient died.

In closing Treskin lays stress upon the difficulty of the diagnosis and presents the illness as one of great gravity, particularly when the abscess lies in the deeper structures.

* Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

Little Bessie had been taken in to see her new brother for the first time. "Do you think you will like him, Bessie?" asked her father.

"Why, yes," she said, clapping her hands delightedly. "There isn't any sawdust about him at all, is there? He's a real meat baby."

ABSTRACTS.

RELATION OF RHEUMATISM AND CHOREA.

Dr. Townsend (*Archives of Pediatrics*) in discussing this subject before the *American Pediatric Society*, says:—"Whatever the exact relations of chorea and rheumatism may be, it seems to me that a study of cases like these teach us the very practical lesson that in a choreic child we should be wide-awake to any indefinite pain as evidence of rheumatism, and should treat it accordingly, and that we should be particularly watchful for endocarditis."

As a summary he offers the following deductions.

1st. Fright, eye-strain, debility, and school-pressure, particularly the latter, which often include some of the former, are potent exciting causes of chorea.

2nd. Rheumatism, although absent from the history of at least half of the choreic patients, occurs with greater frequency among the choreic than the non-choreic cases.

3rd. There is an intimate relation between chorea and rheumatism.

4th. The heart murmur so frequently found in chorea, sometimes associated with chorea and sometimes not, is in a considerable proportion of the cases due to endocarditis, and leads to organic valvular disease.

Dr. Crandall is of the opinion that the relation between rheumatism and chorea is a very close one and the question arises whether there is any chorea without rheumatism. Is there such a disease as fright chorea or hysterical chorea? I believe that there is, in the same sense that there is a rheumatic chorea. A study of the disease leads strongly to the belief that there is some underlying predisposing cause aside from rheumatism, fright, or hysteria. A dozen children have rheumatism and no chorea. The thirteenth has a mild attack of rheumatism and develops a severe chorea. The children in certain families are almost certain to have chorea if they contract rheumatism. Ten children are frightened by a dog and never have chorea; the eleventh at once develops a nervous disorder which increases in severity for two weeks and lasts for six months. A hundred children are scolded by their mothers with no perceptible results of any kind. One of my patients was scolded by a mother who had herself had chorea and at once developed an attack. That there is some predisposing neurotic element underlying all this I thoroughly believe. What it is I do not know. Not every one exposed to the bacillus of tuberculosis acquires the disease. That indefinite factor we call predisposition is lacking. Not every child suffering from rheumatism or subjected to fright has chorea. He is not predisposed to it. I should class rheumatism, fright, hysteria, excitement, pregnancy, not as all-powerful agents for the production of this disorder but rather as exciting agents for the production of a disease in subjects predisposed to it, the most universal and potent of which is rheumatism.

Dr. Adams in discussing this question presents the history of fifty cases of chorea treated at the Children's Hospital in Washington from which he draws the following conclusions.

1. That chorea is due to rheumatism in but a small percentage.
2. That the heart murmurs are hæmic in the largest number of cases.
3. That the successful treatment would seem to exclude latent or apparent rheumatism.
4. That anæmia and chlorosis are well marked in nearly all cases.
5. That nerve impoverishment is by far the most potent factor.

Dr. William Osler, in closing, says, it seems quite impossible to bring all the cases of chorea into the category of rheumatism. Our German colleagues, as you know, have not found more than sometimes ten per cent., sometimes fifteen per cent. In the large number of cases which I have analyzed, and the great proportion of them I have gone over myself with especial care with reference to the history of growing pains, in 554 cases there were only fifteen per cent. with a positive history of articular trouble. Including those with pains of any kind whatever the percentage was only twenty which comes to about the percentage given by Dr. Townsend. Unless we largely expand our con-

ception of rheumatism in children the cases which have come under my observation in Philadelphia and Baltimore, certainly the large proportion of them, there is no definite history of rheumatism, and the absence of the subcutaneous fibroid nodules which our English colleagues lay such stress upon is particularly striking. The only instances I have seen in this country have been in adults, not in children.

The only other point I would refer to is as to the really remarkable frequency of organic heart disease in the subjects of chorea. In the 110 cases from the Infirmary of Nervous Diseases in Philadelphia every one of which had had chorea two years prior to the examination, there were 54 with signs of organic heart disease existing. I do not mean 54 with heart murmurs. There are plenty of people with heart murmurs who have not heart disease, but signs of enlargement of the heart and murmurs of such a character as go only with organic valvular disease; and in more than fifty per cent. of these cases there has been no history of rheumatism.

A point referred to by Dr. Townsend is the extreme frequency of endocarditis in chorea. There is no other disease with which endocarditis is known to be so frequently associated, no other disease the post-mortem records of which show such a large proportion of endocarditis. The nature of the disease and its relationship are still doubtful, but the points which have been brought out here are of considerable interest and show I must say a larger percentage of rheumatic cases than has yet been shown in any series in this country, approaching much more to the English than to the German percentage.

HYDROCEPHALUS.

Dr. A. Jacobi in speaking of Hydrocephalus (*Archives of Pediatrics*) states that in the normal baby's head, while the fontanelles are open, you can count the pulse there better than at the radial; you can see the pulsations. But as soon as hydrocephalic effusion takes place to any extent, this pulsation of the fontanelle ceases.

In most cases, hydrocephalus, is either congenital or acquired early. When it is congenital, the brain is never fully developed, while the skull may be too large, or normal, or too small, at birth. Such a case may be the result of an embryonal inflammation, though no positive evidence of it can be found. The ependyma is often found thickened. The serum contains but little albumen, about one-tenth of a part per mille. Many such cases have been attributed to the obstruction of the aquæductus sylvii, or to that of the foramen magendie; in others they have been found normal. Inebriety and syphilis of the parents have been charged with producing congenital hydrocephalus. It is often found in numbers in the same family.

Acquired hydrocephalus is inflammatory in most cases; that appears to be proven by the condition of the serum which—very much like that of transudation and exudation—contains one per mille and much more of albumen. It is the result of interrupted circulation, for instance by the obstruction of the venar magna Galeni or the sinus recti, brought about by exudation or by tumors, or by slow circulation through chronic hyperæmia depending on general rhachitis. In a number of cases it has depended upon the presence of a tumor which has compressed a large vein, thereby giving rise to an effusion of water. In many cases, however, it is an inflammatory product, and the earlier it occurs, say during fœtal development, the more detrimental are its effects. The immature, soft, and flabby brain is compressed and injured or destroyed. I have seen a whole hemisphere wanting, the meninges being filled with absolutely nothing but water. In a number of cases the lateral ventricles are filled to such an extent that while the head is very large, the brain is atrophied, and sometimes nothing is left but a thin layer of cerebral tissue. These are the worst cases; as I said, the sooner the process begins the worse they are.

When it comes to treatment, you can do much more for those that are acquired than you can for those which commenced in fœtal

life. When the commencement was in early fœtal life there is very little brain tissue, and almost every one of such cases will slowly die. Acquired cases may be benefited, particularly when they go with rhachitis. Tincture of iodine, iodoform ointment and vesicatories have been applied over the cranium, all to no purpose; the iodide of potassium has been given without benefit, for where there is no brain there can be little response, new effusion will take place all the while, and the result of treatment is very insignificant. The same must be said of vesicatories, purgatives, and diuretics. It has been proposed to tap the brain. A number of recoveries have been reported from this practice. I cannot say that I have ever succeeded in curing one by this method, with or without the injection of iodine, which has also been proposed and practiced.

VAGINAL HYSTERECTOMY FOR CANCER WITH REPORT OF FOUR CASES.

Dr. Noble remarks that as the operation of hysterectomy is not conceded by the profession in general, to be the logical means of eradicating cancer of the uterus, too much stress cannot be laid upon the importance of reporting all cases operated upon, and the final results—whether cure or recurrence. And the *value* of the operation, should be determined by the work of the *few skilled* surgeons—who have reduced their mortality to five per cent.—rather than by the results obtained by a *great number* of surgeons, many of whom are inferior operators, if not absolutely bad ones. Vaginal hysterectomy being such a compartively new operation, sufficient time has not elapsed to place on record the remote results of any large number of cases. The statistics of certain German clinics attest a permanent cure in about forty per cent. of cases. As the laity and many also of the profession are proverbially hard to convince as to the efficacy of new operative measures—particularly when asserting the probably permanent cure of the much-dreaded cancer—it is of the utmost importance that all surgeons report all cases under their charge, and make additional reports from year to year, until it can be definitely shown that cancer of the uterus is curable. The theory of climacturic hemorrhage is, most unfortunately, still believed in by a large majority of the public, and many professionals as well. By experienced surgeons and gynecologists such hemorrhage is now acknowledged to be entirely abnormal and indicative of some gross disease of the uterus,—cancer, fibroid tumor, or hyper plastic endometritis.

Were this fact generally recognized, the first great step toward the cure of cancer of the womb would be taken, as it could be diagnosed and removed in its earliest stage,—making a cure almost certain. The following is the report of four cases operated upon by Dr. Noble—they being the only ones out of seventy-five cases which were not too far advanced for operation. Of these four cases, three of the women were multiparæ, and the other had had a single premature labor. The common history was purulent and profuse leucorrhœa, with more or less pelvic pain. The first case having small epithelioma of the cervix, was operated upon in May, 1889, cervix being amputated. In November of the same year, as the growth continued, vaginal hysterectomy was performed, allowing the ovaries to remain. Up to January 2nd, 1893 she was in robust health, and showed no symptoms of a recurrence of the disease. The second case was malignant adenoma; operation, removing uterus and ovaries, took place January 5th, 1892, and up to the present the patient's condition is satisfactory. Number three was also a case of epithelioma of the cervix. The uterus and ovaries were removed October 5th, 1892, and the present condition of patient satisfactory, although she experiences some pain caused by an exudate about the left ovarian stump. Case number four,—epithelioma of cervix—operation December 21st, 1892. The left ovary was converted into a cystoma which was ruptured in the removal; peritonitis immediately followed and death occurred on the fifth day.

* Read at a meeting of Phila. Obstet. Soc., Jan. 5th, 1893.

Dr. Carl Koller (*New York Med. Jour.*) in speaking of "The Subconjunctival Application of Cocaine in Eye Operations," states that his suggestions, made some eight years ago, as to the use of instillations of cocaine solutions to produce anæsthesia for operations on the eyeball met with general approbation, and subsequently the usefulness of cocaine in other branches of surgery was explored by other investigators. He states in part:—"Right in my first experiments with animals, and later in eye operations, I noticed the fact that by instillations of cocaine we were sure to achieve an anæsthesia of the superficial tissues only. I could scratch, or burn, or cauterize the cornea without the slightest pain, but the moment the iris prolapsed or was touched with an instrument, animals and human beings gave brisk signs of pain. In a great number of cases I succeeded in making the iris anæsthetic by beginning the instillations half an hour before the operation, but I did not succeed every time. In my visits to eye clinics of different countries I found that only in a very few of them were instillations begun a sufficient time before the operation to achieve this end. This circumstance, in my opinion, detracts from the value of cocaine anæsthesia in a great number of eye operations. The patient does not care which tissue hurts him. He says he has pain, and calls cocaine anæthesia a beautiful but delusive dream. The pain on touching the iris is especially troublesome in cataract extractions. The patient, who has been promised a painless operation and did not experience any pain in cutting the cornea, is suddenly thrown out of his illusions of a painless operation, makes sometimes a sudden jerk, and may thus endanger the success of the operation.

In squint operations one can notice every time that the patient does not feel the conjunctival cut, but does react quickly when the tendon is seized with the hook or forceps and divided.

Very soon after my first communication I began using subconjunctival injections in squint operations.

I proceed in the following way: After having rendered the conjunctiva anæsthetic by the instillation of a four per cent. solution, I insert the speculum and, by means of a mouse-toothed forceps, seize a fold of the conjunctiva over the tendon to be operated upon. The needle of a hypodermic syringe is inserted through this fold into the subconjunctival tissue as deep as possible, and a few drops of a two-per-cent. solution of cocaine are injected. For injections I use a two per cent. solution in preference to a four or five per cent. solution. I consider 0.05 (two thirds of a grain) as the utmost limit for adults that can safely be applied as an injection if the locality of injection is on the head, while on the limbs double the amount may be allowed. But I am careful to keep a good part within this limit. With a solution of two per cent., and even of one per cent., an entirely satisfactory anæsthesia can be produced if the solution is well distributed over the field of operation, and I attribute it to this use of weak solutions that I have not encountered yet any alarming accidents from the use of cocaine.

After the injection the speculum is removed from the eye and the eye is closed, so that the artificial œdema of the conjunctiva is given time to disappear, which it does in about five minutes. The disappearance may be helped by a little rubbing. If you have prepared a patient in this way, you can perform the operation without the slightest pain—whether it be tenotomy or advancement."

Peroxide of Hydrogen.

CHAS. MARCHAND REFUTES THE STATEMENT OF PROF. A. JACOBI.

My attention has been called to an article read before the "American Pediatric Society," at Boston, May 4th, 1892, by Professor A. Jacobi, M. D., and published in the December number of *The Archives of Pediatrics*. This article is entitled, "Note on Peroxide of Hydrogen," and purports to be a "warning."

The learned writer endeavors to convey the impression that, peroxide of hydrogen (medicinal) is a "nostrum," and that the manufacturer of this article is to be classed among "quacks and patent medicine vendors."

Dr. Jacobi mentions several cases of diphtheria, which having been apparently greatly relieved by the use of peroxide of hydrogen (medicinal), finally were cured under the use of lime water, as a spray and wash.

The inference drawn by the writer of the article in question is, that the peroxide was an "irritant" and had been of more harm than good.

It is not my province as a chemist to enter into a medical discussion with the learned doctor but I would like to ask if, in his opinion, a case of diphtheria can be treated successfully with lime water only, and whether in the cases he cites, it is not possible that the peroxide treatment was an important element in the recovery of these patients. I would also inquire whether the intemperate and in some instances personal allusions to myself and the preparation which I manufacture, are in all respects the outcome of professional investigation, and not the result of a desire to advertise himself by discrediting a remedy of which the therapeutic value has been proved by thousands of physicians who, though they may be "unsophisticated" from Dr. Jacobi's standpoint, are nevertheless known as eminent and honored professional men, all over the world.

The drift of this article is seemingly an attempt to prove that peroxide of hydrogen (medicinal) is injurious.

In confutation of this, I append herewith, in as concise a manner as possible, the experience of a few prominent physicians whose statements may be taken as conclusive in the sense that they are learned and talented professional men, the equals of the writer who challenges their experience after having undoubtedly read their opinions, for every word I quote here has been published, and forms a prominent part of the medical literature of the day.

In confirmation of my sincere belief that the claims made by me of the harmless character of my medicinal peroxide of hydrogen are true, I am willing to submit myself to a thorough test upon my own throat by spraying it with a twenty-five per cent. solution of Marchand's, peroxide of hydrogen (medicinal) instead of a five per cent. solution as alleged to have been used by the doctor, for the same continuous number of days mentioned by him; and if any ulceration appears, or if the repeated applications of the remedy "does give rise to actual diphtheria," as he states may be possible; then I am willing to acknowledge that he is right. This test may be made at any time with the utmost publicity.

I make this proposition in good faith from a scientific standpoint, and will expect Dr. Jacobi to make the test in the same spirit or acknowledge that he does not desire to do so.

THE LIBRARY TABLE.

A Handbook of the Diseases of the Eye, and Their Treatment. By Henry R. Swanzy, A. M., M. B., F. R. C. S. I. Fourth edition with illustrations. [Philadelphia: P. Blakiston, Son & Co., 1892.]

That the third edition of this work, published in October, 1890, should have been exhausted within two years and a fourth edition called for, is positive testimony to its value. Although it is a small book compared with many similar treatises, the information contained in it is so well selected that one reads it with satisfaction. It is not so elaborate as to be wearisome, yet it is complete enough for a guide to the general practitioner and, in many instances, is sufficient for the specialist. The work possesses a distinctive character. It is the production of a mind capable of appreciating the essentials of Ophthalmology, together with the ability to present them in a clear and forcible manner.

This fourth edition has been revised throughout and brought up to date. New means for accurate diagnosis are fully explained, and new remedial measures are described in detail.

While there is no endeavor to present a systematic account of the anatomy and physiology of the eye and its appendages, there are several interesting references to the results of recent investigations in these departments. Instances of this occur in Chapter xi, devoted to "The motions of the pupil in health and disease;" and in Chapter xviii upon "Amblyopia and amaurosis due to central and other causes." Two colored diagrams of "The course of the optic fibres, with the centres of the three visual perceptions, and relations to fields of vision," illustrate the two theories of the macular nerve supply. One is that each macula is innervated from the opposite hemisphere; and the other, that the macula is supplied on the same plan as the rest of the retina, i. e., each side from the corresponding side of the brain.

The subject of treatment of the various diseases of the eye has received careful attention throughout the book. Granular ophthalmia is referred to at considerable length, and the various methods of treatment are fully given. Squeezing out the granulations by means of Knapp's roller forceps is very favorably mentioned.

A caution is given as to the use of jequirity, the author concluding his remarks upon it by saying that "the presence of well marked pannus of the cornea

without ulceration is, I think, the only thing that can render the employment of jequirity justifiable, and, in addition to this, the conjunctiva should be free from blennorrhœa."

In the treatment of corneal ulcers he does not write very enthusiastically of the use of miotics. He considers that they increase the tendency to iritis. Referring to the modern method of thoroughly cocainizing the eye before proceeding to operate for extraction of cataract, he says, that previously to the introduction of cocaine, general anæsthesia with ether or chloroform was commonly employed in England. I never used it." He insists upon careful attention to antiseptic measures, before and during the operation. He presents a very careful description of the "*Three millimetre flap operation*" for cataract extraction in which iridectomy is performed. In his defense of this "combined method," when discussing the subject of "Cataract Extraction *without* iridectomy," he says, "whilst admitting the charm of a circular pupil, I am of the opinion that the question is not whether the appearance of the eye is pleasing to us and to those who inspect them, but rather what advantrge the greatest number of persons operated on derive from the operation. With sentimental talk about mutilation of the iris I cannot pretend to sympathize."

In an appendix Holmgren's method for testing the color sense has been described in greater detail than before.

Swanzy's Handbook bids fair long to hold its place upon the tables of our libraries.

A Manual of Clinical Ophthalmology. By Howard F. Hansell, M. D., and James H. Bell, M. D., with 120 illustrations, pp. 231. [Philadelphia; P. Blakiston, Son & Co., 1892.] Price $1.75.

The authors preface this manual by stating their purpose "to place before the undergraduate and general practitioner of medicine, a brief review of the anatomy, physiology, refraction, and common diseases of the eye." Right well have they performed their work forwe rarely meet with a book which contains so much accurate and valuable information condensed into so small a space.

The first part contains a succinct account of the general Anatomy and Physiology of the eye. This is followed by other sections on Physiological Optics, Refraction, and Ocular Muscles. The remander of the book is devoted to Diseases of the Eye and to Operations.

Although the description of each disease is concise, it is sufficient for recognition; and the treatment is shortly but emphatically given. There is no redundancy. All information is of the most practical character.

This book of 231 pages contains no less than 120 illustrations. As the authors frankly state, none of these are original, but their value has been greatly enhanced by the care which has been exercised in their selection and the excellent manner in which they have been reproduced.

To the undergraduate and general practitioner, for whom it is prepared, it will prove an excellent introduction to more exhaustive treatises on the subject. One recommendation is the low price at which it is published.

Appendicite et Perityphlite, Ch. Talamon; Pleurisies Purulentes, Debove et Courtois-Suffit; Le Rachitisme, J. Comby.

Dr. Talamon has written for the "Bibliothique-Medical Charcot Debove," an excellent monograph on "Appendicitis and Perityphlitis. He discusses the history of the observations from the case published by Negeler in 1813, to the latest histories and operations of Treves, Oppenheimer, McBurney and Keen. Melier in 1827, suggested the wisdom and possibility of operation and reported three cases of perforating appendicitis. The whole subject is discussed intelligently with a thorough knowledge of the accumulated literature of the last ten years, and a useful if perhaps too minute plan of sub-division of the various forms according to the anatomical situation of the part primarily affected is suggested. The author insists, with Ashley of Baltimore, that unrecognized appendicitis is more frequent in woman than is supposed. The activity of American surgeons in this subject is well represented by numerous citations, and Dr. Talamon gives them full credit, while disagreeing with what he thinks a too strong tendency on their part to early operation in preference to the conservative medical treatment he would follow.

Another volume of the same series on the "Treatment of Purulent Pleurises" is by Debove and Courtois-Suffit. American surgeons have not so large a share here, and indeed scarcely appear at all. The authors have not written a polemic in favor of thoracentesis or lavage, but a calm discussion of the whole subject, with insistence upon the importance before operation of careful study of the individual case, especially by means of bacteriologic examination. "When we know the variety of empyema, the nature of the pathogenic agent producing it and the virulence of this agent, we can deduce the probable course of the pleurisy; but above all we can choose the most reasonable method of interference." The study is divided under three heads, the evolution of medical ideas on the subject, the different useful operative procedures, and the methods applicable to each variety of purulent pleurisy.

The third volnme of the same series which bears the apparently necessary name of Charcot, is on "Rachitis," by Dr. Comby. This disease once fortunately uncommon among native whites in this country, is growing more frequent with the increasing pressure of our population. It is one of the maladies which has not been revolutionized by bacterial pathology, but the new interest in minute pathology and the new knowledge of the evolution, prophylaxis and treatment lends it interest. Like the other manuals already reviewed, this one is well up to the information of the day, and if on a matter of less active general moment, is none the less valuable for its clearness, simplicity and fullness.

Curious Questions in History, Literature, Art and Social Life; designed as a Manual of General Information. By S. H. Killikelly. In two volumes. Philadelphia: The Keystone Publishing Co., 1892.

This is a valuable work. Nearly 600 questions are propounded and answered. Probably not one-twentieth of these questions could be answered off-hand and correctly by the best-informed person in any ordinary community. How many readers know: "What noted warrior led his troops into battle after his death?" "What kind of a tub did Diogenes live in?" "What is the Key of Death?" "What city was destroyed by silence?" "When was ecstasy an infectious disease?" These sample questions selected at random, are answered fully, but not fulsomely.

It is a work for cultivated people, and the amount of useful information to be gained from its pages will amply reward the purchaser.

The paper is good and the type clear and legible. "Curious Questions" is bound in two styles; one in dark green cloth, the other in half morocco. The latter style is illustrated.

Medical Journal Advertising: A Manual for Advertisers. Edited by A. L. Hummel, M. D. Price one dollar. Published by Hummel & Parmele, 612 Drexel Building, Philadelphia, 1892.

Intending advertisers will find much of value, and all will be interested, in this book. A number of men, prominent in medical circles, contribute articles of real value. It is an educating book in the sense of showing the benefits of advertising, and in teaching the advertiser how to word and place his announcements to the best advantage.

CURRENT LITERATURE REVIEWED.

PACIFIC MEDICAL JOURNAL.

Dr. Fred. W. D'Evelyn contributes a paper on "The Right Heart in Circulatory Obstruction," in which he cautions against the use of digitalis and its fellows in those cases where the right heart is engorged, and the left side really depleted through the venous engorgement and lack of arterial blood.

Dr. A. W. Perry, in his article on the "Surgical Treatment of Puerperal Endometritis," advises the use of the curette followed by an antiseptic douche in puerperal sepsis, especially those cases where there may be retained portions of placenta or membranes.

The number concludes with an account of "Receiving Hospital of San Francisco," by Dr. Tenison Deane. The hospital is under the charge of the Board of Health, and has accomodations for about twenty patients besides a ward for alcoholic cases. A surgeon is constantly in attendance; fractures are treated; fractured skulls are trephined; laparotomy is done for stab and gunshot wounds, "In fact every conceivable injury is treated at the hospital during the year."

VIRGINIA MEDICAL MONTHLY.

Dr. J. M. Baldy's article on "Uterine Fibromata" gives his experience in hysterectomy. He has removed twenty-seven tumors with two deaths. He pursues the supravaginal extra-peritoneal method, and commends that as being the most uniformly successful.

Dr. John Dunn reports two cases of "Congential Chorea." Dr. N. L. Guice reports a case of "One-sided Swelling of the Face," as the result of malaria.

Dr. William C. Dabney contributes a clinical lecture on "Valvular Disease of the Heart," and defines the indications for digitalis in such cases. There is also a report of a "Aneurism of the ascending arch of the Aorta," by Dr. Llewellyn Eliot. "Dysentery, Its Prevalence and Treatment," is the title of a paper by Dr. L. Ashton. Dr. George Corrie describes an improved "Urethrotome," made after the well known Otis instrument, but differing from it in having a bulb at the distal end of the upper bar of the shaft, which, Dr. Corrie claims, besides sheathing the knife, "defines the tissue to be cut, avoiding the annoyance and uncertainty of having to take measurements." There is also an indicator attached which shows accurately the movements of the blade.

Dr. Chas. G. Cannaday advocates the use of the galvanic current, with faradization, as a "Uterine Developer," giving the report of two cases treated in this way. He claims that, by this method, the uterus is stimulated to take on new growth, the menstrual functions are restored, and dysmenorrhœa and sterility cured. [Tonics and carefully regulated hygiene are also part of the treatment and, in the minds of some, will be accredited with the improvement noted and not the electricity.—Ed.]

MONTREAL MEDICAL JOURNAL.

Dr. W. Johnson reports a case of extensive fracture of the skull as the result of a "Gunshot wound through the orbit." The report is interesting from a medico-legal point of view and Dr. Johnson gives the result of several experiments on the cadaver, made to show the injuries on the skull that would be received by the discharge of a load of shot through the orbit at close range.

Dr. Thomas R. Dupuis, in an article on "Goitre and its treatment," rejects surgical interference as likely to be followed, even if the patient survive, by cretinism and an enormous increase of mucin in the body or *myxœdema*. The various non-surgical methods of treatment are discussed and, while the disease is fortunately rare in this portion of the country, the article is worthy of attention as an addition to our knowledge of the subject.

Dr. J. A. Springle reports a case of "symphysiotomy," performed for contracted pelvis. The forceps had been applied and failed to deliver. After division of the symphisis, forceps were again applied and a living child delivered. The number also contains an address by Sir James Grant, M. D., on "Queen's University and Medical Education."

THE PHILADELPHIA POLYCLINIC.

In the January number of *The Philadelphia Polyclinic* Dr. Baer calls attention to "The Danger of Delay in Pelvic Abscess." Dr. Roberts offers a few remarks on "The Pathology and Treatment of Internal Hemorrhoids."

Dr. Contrell having witnessed many mistakes in the diagnosis of the two affections, "Psoriasis and Syphilis," presents one case of each with a study of several features which are prominent in each.

ARCHIVES OF PEDIATRICS.

The January issue of the *Archives of Pedriatics* contains an interesting discussion on "The Relation of Rheumatism and Chorea" by Dr. Townsend of Boston, Dr. Crandell of New York, and Dr. Adams of Washington, of which fuller mention is made elsewhere.

Types of Infantile Syphilis.

by Dr. Stowell, is deserving of a careful reading. In the treatment of these cases, he states that he has "fallen into a habit of using what proved good." Inunctions of oleate of mercury for infants, with mixed treatment to the mother, if nursing. Older children, especially in late manifestations, were given mercuric chloride in doses ranging from 1-120 to 1-32 of a grain according to age. Mercury we find lauded in all forms. Calomel or grey powder is easily administered, but at times proves too laxative unless checked by an opiate. Inunctions of two per cent. of oleate of mercury, or of the officinal ointment, are better than internal medication. Judicious feeding and general tonics must not be forgotten, for the evil is only removed by constant and long continued vigilance.

A clinical lecture by Dr. A. Jacobi on "Multiple Sarcoma," and "Hydrocephalus" completes the list of the more important papers. This number also contains an open letter from Mr. Marchand in protest to strictures upon Peroxide of Hydrogen made by Prof. A. Jacobi, in a former issue of this journal.

JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES.

For January the leading article offered is a new and successful mode of treatment in "Xanthoma Tuberculatum" by Dr. Morrow. It is illustrated by a chromo-lithographic plate which is of great assistance in elucidating the subject.

Dr. Blanc reports

A Case of Skin Shedding,

in which the epidermis of the hands and feet, particularly the former, came off almost without a break, resembling gloves and moccasins. The nails were loose but did not come off at this time. The doctor believes that while, from the general character of the case, this is not a true type of *dermatitis exfoliativa*, yet it resembles it sufficiently to be a variety of it.

Dr. Hartzell has a carefully prepared paper on "Sarcoma Cutis." The subject matter is well illustrated.

THE BRITISH JOURNAL OF DERMATOLOGY.

The Journal of Dermatology for January contains but one article and that a monograph by Dr. Stephen Mackenzie, on

Dermatitis Herpetiformis

which is defined as a cutaneous neurosis characterized by the multiformity of its manifestations, which may consist of erythematous, papular, vesicular, bullous, and urticarial eruptions, which may appear concurrently or consecutively and are usually attended with pigmentation of the skin; a grouping of vesicles is the most characteristic feature, and present in most cases at some part of their course; it is usually attended with great itching and burning; it runs a chronic course with exacerbations, or relapses and intervals, and usually terminates spontaneously, but may end fatally; it is attended with some, but usually not serious, disturbance of the general health; it affects both sexes, and at all ages, but is most common in the middle period of life; in women it is often connected with pregnancy, but may occur independently of it." It is not surprising that such a polymorphic disease should have received a variety of names. The author has adopted the present name, given the disease by Dr. Duhring, which seems the most generally accepted, as it is the most descriptive.

Neuroses after Removal of Appendages.

Debove (*Nouv. Arch. d' Obstet. et de Gynec.*, 1892) demonstrated at a recent meeting of the Societe Medicale des Hospitaux that removal of the appendages may do worse than fail to cure hysteria and pelvic pain. It may fail to prevent, and may even excite, a neurosis. A woman, aged 38, had her appendages removed in December, 1889. The ovaries were found "diseased." Her period did not recur. On June 28th, 1890, she had a severe nervous attack, which recurred. Debove examined her during one of the seizures. There was right hemianæsthesia with the typical so-called ovarian pain in the iliac fossa. Thus this sympton may exist when no ovary remains. Compression over the region set up an attack, and the pain could be transferred by the application of magnetism. Desuos, in discussing the case, stated that he had twice seen insanity after ovariotomy. Rendu noted that many abdominal operations were followed by the same result. He saw insanity commence in a woman a few days after an operation for artificial anus. The mental disease proved incurable and fatal. Mathieu had seen nymphomania after removal of the ovaries.—*Br. Med. Jour.*

PERISCOPE.

THERAPEUTICS.

Dr. H. A. Hare (*Therapeutic Gazette*) recommends strychnine as a remedy for and the prevention of surgical shock, anæsthetic collapse and opium-poisoning. He states that it must be given in full doses or not all all. Not less than a twentieth of a grain should be used hypodermically every half-hour for an adult; and if the shock be marked, a dose of as much as a fifth of a grain may be given in this way. Disagreeble effects rarely follow, and will probably amount to no more than muscular twitching, which can be readily controlled by sedatives. In describing a visit to Professor Horsley's laboratory, he says that a monkey upon whom a brain experiment was being performed was placed in a water-bath and well covered to attain the proper heat. This is considered necessary for the survival of the monkey, and from it may be inferred that the application of heat about the body of a person undergoing an operation is of the greatest importance. The same is also true in cases of hemorrhage and shock. Experiments by Brunton show that animals poisoned with chloral die from doses, which, when artificial heat is given them, fail to produce dangerous symptoms.

MEDICINE.

Actinomycosis Hominis.

Dr. Justus Ohage in writing on this subject says that actinomycosis in man is one of the so-called modern diseases, that is, its recognition, description and understanding are due to modern investigation and discoveries.

The first to recognize this disease was James Israel, in Berlin, in 1878. He published his observations in Vol. 74, *Virchow's Archiv.* Ponfick, of Breslau, gave a fuller description of it in 1879, and was the first to demonstrate that the disease in man was really due to a fungus, the actinomyces first discovered in 1877 by Bollinger in the jaw of cattle. Since then numerous observations have been published and this disease has obtained full pathological recognition. Actinomycosis is more frequent in Europe than here, at least it is oftener diagnosed and recognized over there; still the disease is common enough in this country to demand the attention of the medical profession.

The disease is produced by the entrance of a vegetable parasite or fungus into the system. The raylike arrangement of its elements caused Harz to name it actinomyces, "aktis," ray, "mykis," fungus. The experimental researches of Ponfick, DeBray and Pringsheim have conclusively shown that this fungus is the true *causa morbi* of the disease in question, and have proved the identity of it in man, cattle and hogs beyond any doubt.

The diseases with which actinomycosis is most often confounded are tuberculosis and epithlial cancer. It gains its entrance into the system in various ways. The fungi may enter with various kinds of food, by inspiration, etc., and according to the channels through which they entered the system the symptoms of the disease make themselves manifest. We have thus actinomycosis of the lungs, the kidneys, the bowels, the stomach, etc.

Most cases of actinomycosis in man have their starting point in decayed teeth and diseased tonsils. From here the fungus is distributed through the organism and begins the destruction of the organs on which it has settled. The protean character of this disease is indigenous to man only, while in the lower animals, cattle and hogs, its predilection is for the jaw. There is another peculiarity—the tendency to the formation of tumors in animals is entirely absent in man. On the contrary, the granular tissues produced by the phlogogenous action of the fungus tend to fatty degeneration and decay. In an insidious and chronic manner the fungi penetrate the tissues, destroying them in their onward march, and unless the perforation of some vital organ as the stomach, or the bowels, or the lungs cuts life short, the mode of death is generally that by pyæmia.

The diagnosis of the disease during life is comparatively easy if the ravages of the fungus are visible to the eye, as in the first two cases which I shall presently describe. A peculiar form of small yellow bodies is always found in the pus, fistulæ and swellings; it is unmistakable after once having been seen. On microscopical examination they seem to consist of threads terminating in bulbous ends. The threads radiate from the centre, thus giving the fungus a ray-like appearance.

When internal organs are attached, hidden from view and inaccessible to observation, the diagnosis is impossible.

The prognosis and treatment of actinomycosis is based upon its indigenous properties. As it is a local fungus disease, not constitutional like syphilis and tuberculosis, it is curable if all the infected tissues can be removed. Where that cannot be done a fatal termination is inevitable.—*Northwestern Lancet.*

Aural Symptoms of Neurasthenia.

Dr. Suney Molist (*Annales des Mal. de l'Oreill*, Dec., '92) offers an explanation of the annoying symptoms, in the form of subjective noises, which are so prominent in many cases of neurasthenia, and which are accompanied often by a considerable diminution of the hearing by bone conduction. These cases of tinnitus are grouped by the author as follows:

(1) Simple suspense of vaso-motor inhibition of the vessels of the cochlea, which, by their pressure upon the terminations of the acoustic nerve, cause a continuous tinnitus, which may be temporarily relieved by forcible compression of the carotid.

(2) Patients who have previously had an

otitis, who are rheumatic subjects or who have an atheromatous condition of the vessels which once dilated do not readily return to their previous condition, the result of this continued dilatation being exudation into the membranous labyrinth or, possibly hemorrhage.

(3) Affection of the perceptive power of the internal ear as the result of the long continued vaso-motor disturbance; in these cases the tinnitus gradually increases in intensity, as does also the impairment of hearing, and to these two symptoms is sometimes added vertigo.

According to Rampoldi (*Annual Univ. de Med.*) there are five groups of sexual diseases which affect the eye, as follows:

(1.) Hysteria and chronic metritis are causative of asthenopia and retinal hyperæsthesia.

(2.) Menstrual disorders. Amenorrhœa is causative of conjunctivitis keratitis, iritis and phlyctenulæ. To suppression of the menses he refers diseases of the choroid, with neuritis and retinitis. The tendency to glaucoma is known to accompany a sudden suppression.

(3.) Inflammatory diseases occur in hyperæsthesia and neuralgias of the trigeminus.

(4.) Pregnancy causes the difficulty accompanying the albuminuria of that state. Amblyopia and amaurosis have been common from three to fourteen days after hemorrhage.

(5.) During lactation and the puerperium the following have been observed: Panophthalmitis, ulcers of the cornea, retinitis, photophobia, disturbances of accommodation and other morbid conditions resulting from debility.

Discriminating Diagnosis Between Cerebral Hemorrhage and Acute Softening.

CEREBRAL HEMORRHAGE.	ACUTE SOFTENING.
1. Age, thirty to fifty.	1. Earlier or later age.
2. Hereditary history of arterial disease.	
3. Sudden onset with coma and paralysis occurring together, the coma deepening.	3. Premonitory symptoms and more gradual onset or more transitory coma.
4. Stertorous breathing, and hard, rather slow pulse.	
5. Peculiar alternate conjugate deviation of the eyes.	
6. Early rigidity.	6. Rarely occurs.
7. Convulsions.	7. Seldom present.
8. Initial subnormal temperature followed by a rise in twenty-four to forty-eight hours.	8. No initial fall of temperature. But slight tendency to subsequent fever.
	9. Presence of weak heart or endocarditis. Slight hemiplegia with aphasia. The puerperal state.—Dr. Dana.

SURGERY.

Dr. Darrah (*Boston Med. and Surg. Jour.* Jan. 12, 1893) in a report of three cases of caries of the coccyx draws the following conclusions:

(1) That caries of the coccyx occurs very infrequently.

(2) That it is more common in females than males.

(3) That there are these important points in considering the diagnosis of these cases: (*a*) history of injury; (*b*) constant pain; (*c*) multiple and persistent sinuses (not always present); (*d*) that persistent sinuses should lead one to suspect caries of the coccyx; (*e*) that excision of the coccyx is the best treatment for all cases when there is disease of that bone.

The Early Extirpation of Tumors.

In a paper read before the New York State Medical Association, at its recent meeting, Prof. J. W. S. Gouley presented the following conclusions on this subject:

1. Malignant tumors exceed benign tumors in frequency.

2. That malignant tumors comprise epitheliomata, sarcomata and internal adenomata.

3. Among the benign tumors myxomata and external adenomata often recur after incision, but do not infect the system.

4. There is no solid benign tumor that may not become malignant.

5. No means are known by which can be ascertained the precise time of the beginning of metamorphic action in tumors.

6. Most malignant tumors have a stage of benignity.

7. Excision of potentially malignant tumors in the early epoch of their stage of benignity is likely to effect a permanent cure, or at least to prolong greatly the period of immunity from recurrence of the disease.

8. In the excision of malignant tumors the greatest care should be taken to remove as much of the ambient tissue, including fasciæ and lymph glands, as is compatible with good judgment.

9. General treatment of tumors has no value except as an adjuvant of a surgical operation, and is often indirectly injurious, leading the patient to expect a cure by perservering in the use of drugs, and thus allowing the disease to make rapid progress toward a fatal end.

10. Local treatment of tumors, by means of escharotic plasters, pastes or powders, is the most fruitful in evil of all the devices for the torture of the afflicted. The plaster, paste or powder causes the greater part of the tumor to slough, but there is enough left behind for the most rapid extension of the disease. The effect of the escharotic is, therefore, only to till a soil where new growths sprout like so many seeds cast upon a rich loam.

11. Compression is delusive in the case of tumors containing cysts, and is directly hurtful by exciting the rapid growth of most tumors.—*At. Med. and Surg. Jour.*

Treatment of Aortic Aneurysm by Electrolysis through Introduced Wire.

Stewart (*Amer. Jour. Med. Scien.*, October, 1892) reports a case of large sacculated aneurysm of the aorta treated by the introduction of wire and electrolysis. This treatment was tried with the object of promoting prompt formation of firm protecting coagula, in order to retard rupture of the thin-walled sac. The aneurysm, which had arisen from the lower part of the thoracic aorta, and subsequently had involved a portion of the abdominal aorta, was a very large one, and bulged backwards so as to form a prominent pulsating swelling in the left lumbar region. The patient was a man, aged 32. In his operative treatment of this case the author chose a rather heavy silver wire with the idea that the presence of large supporting spirals in the sac occupying much of the cavity, and affording a good framework for clot, would offer a better chance of immediate success than the use of a thinner and more pliant wire, which might undergo deflection from its course of introduction through coming in contact with loose coagula already in the sac. Two and a half feet of wire and also one end of a platinum needle were introduced into the sac, and a current, after being gradually increased to a strength of 70 milliamperes, was maintained at this point for one hour. The wire was passed through a canulated steel needle two and a half inches in length. The condition of both needles on withdrawal showed unquestionable clot formation about them.

On the third day from the date of operation a remarkable change was noticed in the condition of the aneurysm. The prominent pulsating portion in the left loin had become depressed, and transmitted pulsation could be detected in it. The whole of the lower part of the aneurysm felt much firmer, and was quite without pulsation, while the extreme upper part seemed to have undergone no change. The patient, however, continued to suffer severely, and, on the ninth day, died very suddenly in consequence of the rupture of the sac. At the necropsy firm clots were observed in all portions of the aneurysm, together with soft ones evidently of very recent origin. The wire was engaged in several large firm clots, which were of so solid a texture that when examined in that part of the sac which was removed they could not be separated from the sac and wire without some difficulty.

OBSTETRICS.

Asepsis and Antisepsis in the Lying-in Chamber.

Potter makes the following propositions concerning asepsis in the puerperal chamber.

1. Let us begin by making the patient as nearly clean as possible for soap and water to accomplish.

2. Let her, prior the beginning of labor, have an immersion-bath daily for several days, and with the first manifestations of pains, let her abdomen and genitalia be rendered absolutely aseptic by further application of germicides in solution, adequate to accomplish the desired end.

3. Let her have a warm vaginal douche, rendered aseptic.

4. Let the lower bowel be thoroughly evacuated by copious lavements of hot water prior to the vaginal bath.

5. Let her bedding be made as pure and clean as careful laundrying can make it.

6. Let her clothing be made equally clean in like manner.

7. Let there be a number of clean bichloride napkins placed in readinesss for use.

If all of these injunctions are rigidly enforced, we have done much to lay the foundation for a physiological labor.

The physician and all the attendants must be rendered as scrupulously asceptic as the patient herself. The nurse must be especially trained in the habit of keeping her hands clean. After the first examination, which should be made as carefully and deliberately as possible, the physician should refrain from further examination unless absolutely required.

Suckling and Quinine.

Oui (*Arch de Tocologie et de Gynec.*, December, 1892) finds that when the mother or nurse takes quinine it has no ill effect on the child. The drug is certainly excreted with the milk, but in very small quantities. The quininised milk has absolutely no influence on the child. After a series of careful weighing and measurement, it was found that the average was the same in children suckled for a given time by nurses who had taken quinine as in children whose nurses had not taken that drug. Hence a nurse or mother may safely take quinine. Burdel's theory that quinine is noxious to the child is incorrect, and the precautions which he recommends are therefore unnecessary.—*Brit. Med. Jour.*

Missed Abortion.

Liebmann, of Buda-Pesth (*Centralbl. f. Gynak.*, No. 38, 1892, from the *Arvosi Hetilap*), relates a case in which the remains of a fœtus which had died *in utero* were discharged piecemeal. A three-para suffered at the fourth month of pregnancy from a fœtid sanious discharge, which lasted for two weeks; then pieces of fœtal bone began to come away. The process took about seven months, with intervals corresponding to the greater or less strength of the uterine contractions. Some of the bones were discharged singly; some remained articulated and required forceps for their removal. The placenta came away four and a-half months after the beginning of the abortion. The number of bones that were thus gradually delivered amounted to over seventy, and indicated that the fœtus had reached the third month.—*Ex.*

GYNECOLOGY.

Fatal Rupture of Pyosalpinx: Suspected Abortion.

Rochet (*Journ. d'Accouchements*, 1892) recently described a case of rupture of a pyosalpinx from rough handling during the application of the curette to the uterine cavity. He adds a yet more instructive case. A female servant, aged 26, was admitted into hospital, losing blood. She fancied this might be due to a miscarriage at the first month, which she believed to have occurred on the previous evening. The uterus seemed normal. A tender mass of the size of a small egg, lay in Douglas's pouch. A few days later the patient insisted on leaving the hospital. She was therefore examined first; the mass was found smaller and less tender; at the time the examination caused no pain. Pyosalpinx was diagnosed, and the patient, instead of leaving the hospital, remained, and an enema with a dose of castor-oil was given in view of an operation. In the evening the patient became very ill. Next morning an exploratory operation was performed. Pus escaped freely when the abdomen was opened. Douglas's pouch was laid open and drained. The patient died in a few hours. There was a judicial inquiry owing to a suspicion that she had died from attempted abortion. There was no doubt that the cause of her death was rupture of a pyosalpinx. The uterus showed signs of recent early pregnancy. There was no evidence of criminal abortion. Rupture of a pyosalpinx is no doubt the cause of many mysterious deaths after curetting, dilatation of the uterus, etc., when the uterus is dragged downward, or pushed upward with violence.—*Brit. Med. Jour.*

ARMY AND NAVY.

FROM JANUARY 15, 1893, TO JANUARY 21, 1893.

First Lieutenant Thomas U. Raymond, Assistant Surgeon, is relieved from further duty at Vancouver Barracks, Washington, and will report in person to the commanding officer Fort Canby, Washington, for further duty at that station, relieving Captain Edward C. Carther, Assistant Surgeon, who on being thus relieved, will proceed to Vancouver Barracks, and report in person to the commanding officer of that post for duty there.

Captain Guy L. Edie, Assistant Surgeon, U. S. Army, is relieved from duty at Fort Neobrara, Nebraska, and will repair to New York City, New York, and report in person to the attending surgeon in that city, for duty in his office.

Leave of absence for four (4) months, is granted Captain Jefferson D. Poindexter, Assistant Surgeon, U. S. Army.

NEWS AND MISCELLANY.

One of the Ways by which Corporations Reduce the Income of the Medical Profession.

In general it may be said corporation exist to reduce to the lowest possible degree the incomes of all with whom they deal. On former occasions we have called attention to the effect of railroads upon the income of surgeons. But just now we desire to call attention to the influence of accident insurance companies in diminishing the income of the profession.

Formerly when one of the employes of a manufacturing establishment was injured, either the employe called upon his own doctor or the company sent him to a well known practitioner. After recovery, either the man paid the doctor what he was able to, or the company paid the bill. In either case the doctor got a reasonable reward for his work and responsibility. Lately companies have been formed that agree for a certain sum to look after the injured employes. The results of this plan are that the accident company deliberately sets about to cheat the doctor out of his fee for service. It employs men adapted for this particular purpose. If they fail in other ways, they dump the patient into the charity ward of a hospital, paying his board and making the hospital doctor do the work for nothing. In the aggregate the money thus lost to the profession and put into the pockets of the accident insurance company is very large.

In this case we do not see any way by which this leak can be stopped, because all doctors, will not combine to prevent it. In a different form, it is the same as with the railroad doctors. All will not agree in refusing to do the work without fair compensation. In each case, if one refuses, another takes his place on the terms offered by the corporation. In the contest between doctors and corporations, the latter take the money and keep it, while they leave for the doctor all the glory.

As to the benefit to employes, the following is significant. The writer, observing a dangerous condition of a freight elevator, directed the attention of the proprietor to it. He carelessly replied that it made no difference to his house, as a casualty insurance company was paid to protect the firm from all damages.—*American Lancet*, Nov. 1892.

Popular Tours to Washington.

Personally conducted tours to Washington have been arranged via Royal Blue Line, to be run at frequent intervals from New York and Philadelphia to Washington. The next excursion will be on February 2nd. For programme describing these tours, write to Thos. Cook & Son, Agents B. & O. R. R., 261 and 1225 Broadway, New York, or 332 Washington Street, Boston.

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ORIGINAL ARTICLES.

W. H. LINK, A. M., M. D., Petersburg, Ind.
Object Lessons in Gynecology 157

JOSEPH HOFFMAN, M. D., Philadelphia.
The Salient Points in Appendicitis—Its Diagnosis and Treatment 160

CLINICAL LECTURES.

WILLIAM GOODELL, M. D.
Prolapse of the Womb from Hypertrophic Elongation of the Supra-Vaginal Portion of the Cervix—Supernumerary Ovary with Ventral Hernia—Pyo-Salpingitis—Nervous Ovaries 163

COMMUNICATIONS.

G. A. WALL, M. D., Topeka, Kansas.
Abscess of Frontal Sinus—Report of Case—Operation 166

J. S. WRIGHT, M. D., Brooklyn, N. Y.
An Attempt to make a Radical Cure in Three Cases of Hernia 168

L. S. MCMURTRY, M. D., Louisville, Ky.
Two Cases of Suppurative Intra-Pelvic Inflammation with Specimens 170

SOCIETY REPORTS.
The Clinical Society of Louisville 171

EDITORIAL
An Agnew Memorial 178

TRANSLATIONS 180

ABSTRACTS 186

THE LIBRARY TABLE. 191

CURRENT LITERATURE 191

PERISCOPE

MEDICINE 194
SURGERY 194
OBSTETRICS 196
GYNECOLOGY 196

NEWS AND MISCELLANY 196

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ORIGINAL ARTICLES.

OBJECT LESSONS IN GYNECOLOGY.

W. H. LINK, A. M., M. D, Petersburg, Ind.

V. PREPARATIONS FOR AN ABDOMINAL SECTION.

PREPARATION OF THE SURGEON.

There are a vast number of men in country practice who, for reasons best known and perfectly justifiable to themselves, have had no special training in abdominal work. Yet all of these men must at times face emergencies that demand a prompt resort to section. There is no time to send for a trained operator, for ere the message reaches him the patient is dead. Then, even if the case is one that can wait, the counsel sent for may be so busy that he cannot come. There is a class of patients who are too poor to pay even the attending physician, much less some specialist, who has calls enough on his generosity at his own door. So the emergency patients and the poor must put up with the aid near at hand ; and it is of prime importance that it be as good as circumstances and honest persevering effort can bring forth.

Any country doctor may at a moment's notice be called to a case of ectopic pregnancy with rupture, shock, internal hemorrhage and impending death. No time to send for the great Herr Professor Doctor Bock-bier. That belly must be opened and cleaned out, and that bleeding artery tied or a visit from the undertaker is the inevitable consequence.

Again, some child may be suddenly attacted with agonizing pain in the bowels attended with bloody mucoid discharges and a sausage-like doughy lump in the abdomen on one or the other side. A diagnosis of acute intussusception being promptly made, if the section is deferred till counsel is called from a distance, either adhesions will have become so dense, or tumefaction of the swallowed gut so great, or gangrene from constriction so far advanced, or shock so profound, or all of these so combined that when a section is resorted to, it will amount to no more than a autopsy on a living patient. Other forms of obstruction, such as volvulus, concealed hernia and dynamic obstruction from paresis due to appendicitis, are equally fatal if treated by procrastination.

In this day and age when fire-arms are so plentiful, penetrating wounds of the abdomen are not infrequent, while they, above all others, brook no delay, and death laughs at expectancy.

A deformed pelvis or a ruptured uterus may call upon the medical attendant at the most unexpected moment for a Porro, and the most hurried preparation will be none too rapid if a life is to be saved.

A fulminant case of peritonitis from a leaking or ruptured pus-tube, or ovarian scess, may cross the physician's path even in the night, and a rapid section with irrigation and drainage can alone save the patient from immediate dissolution.

These are not imaginary occurrences drawn from a "grandfather's tales," or

abstracted from a revolving library; for instances of every case named suppositiously have come under my own observation—except the ruptured uterus, and I have no reason to believe that my practice differs from the average practice of country doctors in general. If this be the general experience why should medical journals and medical writers waste so much time and space telling us that abdominal surgery is so intricate and difficult that only a chosen few ought to tempt fate by resorting to section? Why should they not spend more time and effort in teaching the benighted country doctor the correct principles of abdominal surgery? Why not dwell upon the severe techinque that makes work of this kind more successful in the hands of the tyro than when it is done by men of great experience without due attention to every detail and compliance with well settled principles?

Abdominal surgery need not be more fatal than any of the major surgical operations in the hands of the inexperienced if certain well established rules be followed. Certainly opening the abdomen and tying off a ruptured and bleeding fallopian tube does not require any more nerve or skill or knowledge of anatomy than to cut for stone or to ligate any large artery. Yet we are all expected to do these things in country practice. The great difference between abdominal and general surgery is that any defect in asepsis in abdominal and pelvic work is most likely to be attended by a large mortality; while in other surgery nature is better able to protect the patient from the mistakes of the operator. But this is no valid objection for any man can be clean while soap and water are so cheap and abundant. In general surgery, too, dirt may be, and often is, neutralized by the application of chemical antiseptics, which, if used inside the belly, would be more detrimental than other or accidental kinds of dirt.

In preparing for a section the first thing to consider is the surgeon himself. He should be *scrupulously clean.* The evening before doing a section he should take a bath and change his underwear for fresh ones. He should put on clean outside clothes, none of which have been worn while in attendance upon any septic case, or case of erysipelas. When preparing for the operation itself he should wear a long white apron fresh from the laundry. His sleeves should be rolled above the elbows and he should scrub his hands and arms with a good stiff nail brush, soap and water; the water being as warm as can be comfortably borne. This process should continue through several changes of water and for at least ten minutes. The nails being trimmed close should receive very careful attention with the brush. The brush itself should be sterilized in the same way as the sponges, in addition to being first thoroughly scalded. After the hands of the operator have been thus rendered aseptic they should not come in contact with any substance whatever, except boiled water. If, by accident or necessity, the operator should touch any object about the room, or any covering of the patient, he should at once scrub his hands again.

PREPARATION OF THE INSTRUMENTS.

The instruments should be put into a small shallow pan and, boiling water having been poured over them, they should be carefully cleaned with a brush and dried with a clean towel. The forceps should have all the joints of French locks bored out with the point of another forceps covered with a towel. Then rinse in hot water and carefully dry. Being packed away after this process they remain thus till taken out for an operation. Then they are put into a pan and have boiled water poured over them whence they are removed as needed. Instruments to be used in abdominal work should be packed in a *special* bag and *never used in any other surgery.*

LIGATURES AND SUTURE MATERIALS.

Scald the silk or boil it and stretch it before threading. Simply scald silk-worm-gut. For dressings, in my own work, I have always used the gauzes prepared by Seabury and Johnson, and I can say that I have never had a drop of pus in any wound made by my knife and dressed with such material. So I have confidence in them.

SPONGES.

Buy the very best and finest. Never use a sponge costing less than twenty-five to fifty cents. If properly treated sponges will last a long time and may be used for many operations. Beat and rub them well in order to get out all the sand possible. Then wash through several basins of cold

water and put in a solution of diluted muriatic acid over night. In the morning wash several times in cold water and drop into sulphurous acid (not sulphuric) 2:10 and leave twenty-four hours, then wash again and drop into absolute alcohol till needed. A self-sealing fruit jar makes a good receptacle for sponges and is always in reach of any one.

After using sponges wash them in cold water; rinse in warm water and drop into a basin of a solution of washing soda and let stand for six hours. Take out and wash and drop into a solution of sulphurous acid 2:8. After standing twenty-four hours wash and drop into alcohol. If the operation be on a pus or cancer case one had better burn the sponges.

BRUSHES.

The nail brushes should be carefully washed, then scalded and allowed to stand for twenty-four hours in sulphurous acid, when they are removed, washed in boiled water and dropped into alcohol till needed.

PREPARATION OF THE PATIENT.

The patient should be prepared for the operation at least forty-eight hours beforehand when possible. She is bathed and the hairy parts are thoroughly shampooed. Her nails are trimmed and carefully cleaned by scrubbing with soap and nail-brush. Just before the bath she is given a saline and this is repeated in teaspoonful doses every hour until her bowels are completely emptied. To assist the action of the saline, after the second dose she is given an enema of soap-suds. As soon as she is bathed she has clean clothes put on and goes to bed. For twenty-four hours before the operation all solid food must be withheld, and she must have no milk at all. Twenty-four hours before she is put on the table she is given a bath with alcohol and this may be repeated just before the operation. She must have a vaginal douche three or four times a day. Warm water with or without boracic acid, as one pleases. Immediately before operation her body clothing and the bed clothes are all changed for fresh ones.

After operation she is to have absolutely nothing, not even a drink of water for twenty-four hours. She may wash out her mouth with warm water but must spit it out. If she is persistently nauseated she may have a half a glass full of hot water to be drunk down at once. If nausea still continues, and especially if vomiting is bilious, she may be given $\frac{1}{10}$ or $\frac{1}{4}$ grain doses of calomel every hour for ten or twelve hours. If pain goes beyond tying pain give saline and shovel it in till catharsis is profuse. Clean the drainage tube every half hour at first, then less often till it is dry, then remove.

Drainage tubes for abdominal work should be of glass, open at both ends and perforated at the lower extremity for a distance of one or two inches with very fine holes. A very good and cheap syringe to suck out the tube with may be improvised by putting a gum catheter on the end of a large penis-syringe. Both should be new and made aseptic by washing and scalding each time before using. The strictest asepsis should be maintained while empting the drainage tube.

It is to be remembered that the prime factor in abdominal work is *cleanliness*. There must be absolutely no lapse in asepsis at any time, by either operator, assistants or nurse. To put the hands into one's pockets, or to rub the nose, or to brush back the hair, or to mop the sweat from the brow, is as grave a sin against asepsis as one need have his attention called to. The hand or finger that goes inside the abdominal cavity or that touches any of the abdominal viscera must come directly from sterilized water only.

Treatment of Delirium Tremens Wthout Chloral, Bromide of Potassium or Opiates.

Dr. Norman Kerr, in *The Quarterly Journal of Inebriety* for October, asks "if delirium tremens was a morbid state, which was the issue of neurasthenia, or an effect of alcoholic poisoning. He believes it to be the latter, and that the disease arose from the cumulative specific action of a poison on the cerebral tissue through the alcoholization of the blood." Acting on this belief, his treatment is to eliminate the poison from the brain and nervous system, and leaving the healing power of nature to do the rest. He avoids alcoholic liquors and opiates, chloral, bromide of potassium and all narcotics. He gives as the only medicine liq. am. acet., at first every hour in drachm doses, and as nourishment, milk, beef juice, broth. Coffee was frequently given.

THE SALIENT POINTS IN APPENDICITIS—ITS DIAGNOSIS AND TREATMENT.

JOSEPH HOFFMAN, M. D., Philadelphia.

For so hackneyed a subject it were almost necessary to apologize were there not so much variance in the views concerning it by those who, from experience or investigation, or both, have dealt with it in the light of its pathology as now understood—a pathology based upon a scientifically correct anatomy. Although demonstrated by Bardleben as early as 1849, and by Luschka in 1861, that the cæcum, and therefore the appendix, is entirely within the peritoneal cavity, the fact was ignored, and a perverse adherence to tradition substituted for demonstrated facts in all the teaching and discussion concerning the pathology of this region. Not until Mr. Treves, in his Hunterian Lectures of 1885, insisted upon an anatomy of this region now accepted as correct, was there serious attention paid to the value of surgical interference in a manner calculated to impress itself upon the general medical understanding, which is even yet handicapped by the weight of authority slimy with poultices and comatose with opium.

In order to appreciate certain pathological peculiarities in the position of the appendix after inflammatory complications, certain anatomical peculiarities of the cæcum are not to be overlooked. They will satisfactorily explain certain conditions otherwise puzzling. The cæcum itself is entirely surrounded by peritoneum which, after enclosing it, is reflected upon the posterior wall of the abdomen, being continuous with the ascending mesocolon when this fold exists. The cæcum, therefore, lies quite free in the abdominal cavity and enjoys a considerable amount of movement. The appendix is usually directed upward and inward behind the cæcum, coiled upon itself, being retained in its position by a fold of peritoneum which sometimes forms a mesentery for it.

The cæcum, therefore, hanging more or less free in the abdomen, is endowed with considerable latitude as to its motion. Rokitansky, describes these as threefold,—first, rotation upon its own axis; second, upon the mesentery as an axis; and third, upon another intestine as an axis. By rotation upon its long axis the cæcum may become so twisted that the ileum opens on the right side; but when revolving on its short axis the appendix may be placed toward the anterior abdominal wall, or it may be placed at the posterior aspect of the intestine. It will be evident that when these movements are combined there must be a resultant of motion, the location of the appendix varying accordingly as the movement of the cæcum. So far as the mesentery of the appendix is concerned, there is frequently a pouch between it and the ileum, consisting of folds of peritoneum which, from pressure by the rotation of the cæcum becomes, either congested or atrophied, and is thrown into a band or perforates—in either way becoming a source of danger to near-lying intestine, either as a strangulating cord, or as a ring through which a fold of intestine may fall and be choked in a hernial fashion. It is evident from these facts, that a purely physiological rotation of the cæcum may bring on a pathological congestion without the presence of any irritating matter whatever, and hence that in simple appendicitis where no concretion or fæcal deposit is found, we are to take into consideration such etiological factors, and not hastily conclude that the adhesions, limited simply by the peritoneal coats, have been previously caused by intra-appendical inflammation or deposit. Careful observation of such cases will reduce the number of instances in which an appendicitis is supposed to have healed by resolution.

A further point in connection with the variable position of the appendix is, that although this is variable, it is not abnormal but depends entirely upon the rotatory movements above referred to. A careful consideration of these facts in primary operations before there are universal adhesions with general pelvic implication, will be useful in determining, at least approximately, the position of the appendix, and so shorten the operation and prevent unnecessary handling of the intestines. Where operation is subsequent to repeated attacks, the anatomy is hopelessly con-

fused and careful, painstaking effort is required to get at the seat of the disease, and success is not always then assured.

Looking at the inflammations in the cæcal region from a purely anatomical standpoint, it is evident that their classification can and should be very much simplified. In a previous paper I ventured to assert that if we are to retain the terms perityphlitis, typhlitis and paratyphlitis, it should only be to remember that they are simply the sequelæ to appendicitis. This, of course, is not to be construed into a denial of the occurrence of stercoral colitis. This lesion is often within the range of probabilities, but has rarely been demonstrated. Dr. McMurtry's case, reported in the *Journal of the American Medical Association*, July 7, 1888, abundantly proves the real existence of perforative cæcitis, and also shows what refined skillful surgery can accomplish in this class of cases. But in dealing with disease it is facts we want, not names, and the nearer we can get down to a simple expression of causation, expressed in a certain well defined pathological exponent, by so much are we closer to a correct understanding of the pathological processes with which we have to deal. Hence, it is here well to consider in general terms that the appendix in real inflammatory conditions of this region, is the origin of the trouble, not denying that there may be possible exceptions to the statement, but arguing rather that the exception proves the rule.

Of late, there has been so much discussion of the necessity, advantages, time, etc. for operation in appendicitis that the procedure is itself no longer questioned in the so-called suitable cases. Methods, lines of incision, after-treatment, and the proper selection of cases, at present are receiving so much attention, that we must before long be placed in a light by which the operation can be more intelligently appreciated. Apropos of the former dilly-dally methods of treatment by opium, poultices, and funeral rites of the more serious cases, we have two classes of counsel in regard to operation. The first is that at once upon a real danger-signal—persistent pain, high temperature, and greater or less induration—operation should be resorted to. The surgeons of this order also advise resort to mild but efficient purgation to get rid of all extraneous pressure and to relieve congestion. Of the other faith are those who counsel waiting, with the argument that in reality very few cases of appendicitis result fatally, and that a great majority recover under rest and opium.

A third division now comes to the front, with the advice to operate between the attacks; in other words to wait for a recurrence before attempting operative relief. These latter surgeons really belong to the progressive surgeons of to-day. Foremost among them being Dr. Senn and Mr. Treves. Dr. Senn's argument for operation after a primary attack of appendicitis, before adhesions are universal or even moderate, in the presence of real suppuration or strongly suspected destructive inflammatory process, is logical from every point of view. It stands evident that if we are to operate, operation should be done before a complexity of adhesions exists rendering interference difficult or impossible. Mr. Treves in an article upon the treatment of relapsing typhlitis (*Brit. Med. Journal*, Nov. 1889) insists that in such cases the best results are obtained by operating after all inflammatory and other symptoms have ceased. A careful examination of the argument of Mr. Treves shows that he considers the subject from an altogether different standpoint from Senn. Dr. Senn would have us operate before there are serious inflammatory complications, and dwells particularly upon the safety of such operation. Treves, on the other hand, argues for relapsing cases, and from his conclusions evidently has in mind the worst possible cases. Viewed in this light his argument falls short and is assailable. If we are to operate, for how many recurrences are we to wait? Then again if there is a perforating appendicitis, how do we know that the inflammatory symptoms will subside at all? What we do know is that the longer the inflammatory symptoms persist the greater will be the complications, and the less will be the strength of the patient to endure operation if it is finally resorted to. The argument of the recurrence of the disease against operation by opponents of early operation is, I think, used fallaciously. Fitz's tables records a recurrence of eleven per cent. Those of Kraft, are double this or twenty-two per cent.

From the anatomy of the parts above referred to, it is evident that many cases

of appendicitis are limited to simple inflammatory peritoneal adhesions, and are really not appendictis at all, and hence have little or no tendency to recur. In general statistics, these are all included under a general head, when if excluded, they will both reduce the number of cases of appendicitis, and increase the number of recurrences in actual disease. To these may also be added cases of stercoral cæcitis, which are also reckoned as coming under the head here discussed, but which are really entirely distinct from it. If we take out these from the whole number of cases, the average of recurrence is still further increased. Cases coming under these two latter heads, are those which most frequently yield to the routine treatment, and which are therefore put down as cured without recurrence.

In distinguishing these forms from the serious or perforating and ulcerative varieties of the disease, the treatment has much to do. A simple inflammatory congestion may result in peritoneal adhesions and get well without treatment at all. This we find constantly in the abdomen. A stercoral impaction under opium and calomel will finally be relieved, though why it will not be relieved by calomel alone if relieved by both, is one of the mysteries of therapeutics. But if there is a real perforating ulcer what is there curative in rest, opium or poultice? Or what advantage is there in it, since there is at least danger of recurrence in twenty-five per cent. of cases, with the danger of peritonitis increased in each recurrence, and the need of operation almost imperative if we would give the patient any chance? Recurrent cases must be regarded as the typical cases of this disease, and those which do not recur, and give no further symptoms after prompt depletive measures to relieve congestion, as having little more relation to them than has roseola to scarlatina. That concretions may exist in the appendix without giving rise to inflammatory trouble does not invalidate the general rule that ordinarily they cause suppuration.

But when we have concluded to resort to operation what plan are we to pursue? Here we are to be led by the principles of abdominal—not of general, surgery. We are not for instance to be led by Mr. Treves, who falls into the egregious error of considering abdominal surgery nothing more than general surgery. Treves would have us separate all adhesions by the knife, just as on the post-mortem table the pathologist secures his specimens. Such advice must only come of insufficient observation of the work of true abdominal surgeons, and from an experience which is too small to be generalized. Dr. Homans, of Boston, cautions us against the use of the drainage tube, saying, "Drainage tubes in the abdomen are apt to be followed by fistulæ." Dr. Homans has not the right to condemn the drainage tube except from his own experience. In the hands of many the drainage tube has yielded the greatest satisfaction, as you have already heard. Mr. Tait says it decreases his mortality from ten to fifteen per cent. Careful cleansing of the tube will prevent the objections to its use and free it from an odium unmerited. Mr. Treves falls into the same error, when he says the drainage tube should not be used. In abdominal work, no surgeon, whatever his ability, can lay down a rule which can remotely hope for constant observance so far as drainage is concerned. So far as Mr. Treves' anatomy is concerned, it is very good, the best; so far as his surgery is concerned, it is fair to say in many respects it is very bad from an abdominal standpoint. This is especially evident if we attempt to follow his directions in cases in which we are not able to remove the appendix, either from the nature and extent of the adhesions or the condition of the patient. In the presence of such a suppurating, sloughing mass, the only thing to do is to open up and get down into the suppurating cavity, remove all debris possible and introduce a drainage tube to allow the escape of its poisonous contents.

The differential diagnosis of inflammation of the appendix from other diseases of the abdomen and pelvis, is not always easy. It is more difficult in women than in men. Many of the affections however that have been confounded with it in diagnosis ought to be excluded by careful examination. Such are renal and biliary colic, ovarian neuralgia, traumatic rupture of the intestine and the like. It is important to remember, that in urgent symptoms, positive diagnosis is not called for, and that exploratory incision is not only justifiable but demanded.

In men the presence of an indurated

mass in the right iliac fossa, together with the detection of fullness and pain by rectal examination, is an important point in diagnosis. The right leg is often drawn up, and there is tension of the abdominal parietes over the cæcal region. A chill often is a concomitant of perforation and peritonitis. Mr. Tait records a case in which he diagnosed suppuration at the base of the kidney, but which was shown by exploratory incision to be a "perityphlitic" abscess. He says: "The history has been most carefully gone into, and even now in going over the case, I do not see how we could have come to any other conclusion." The differential diagnosis from hernia is generally easy, though cases have occurred in which the appendix has been found in the inguinal canal and scrotum. McBurney (*N. Y. Med. Jour.*, Dec. 1889) lays especial stress on his observations going to prove that the point of the greatest tenderness, discoverable by a single finger-tip is, in the average adult, almost two inches from the anterior iliac spine, on a line from this process to the umbilicus. It is not probable that in all cases the exact spot of greatest tenderness will be even approximately the same, but even if in a smaller number of cases it is found to correspond, it is to be considered a valuable point in diagnosis.

The value of puncture in diagnosis of appendicitis, to determine the necessity of operation from presence of pus, has been variously discussed for and against. Here difference in opinion stands out prominently. But the fact remains that if used it can do no good, and when used it is only, or should be, when other symptoms point prominently to the pus. If puncture is negative, so far as positive evidence of pus is concerned, it is misleading and may do infinite harm. I believe it should never be used therefore and should be condemned.

CLINICAL LECTURES.

PROLAPSE OF THE WOMB FROM HYPERTROPHIC ELONGATION OF THE SUPER-VAGINAL PORTION OF THE CERVIX—SUPERNUMERARY OVARY WITH VENTRAL HERNIA—PYO-SALPINGITIS—NERVOUS OVARIES.*

WILLIAM GOODELL, M. D.

Gentlemen: This patient, forty years of age, was married when she was twenty-three years of age and has eight children—the youngest is eight years old. She says her womb comes outside of her body, which fact she first noticed eight years ago.

In order to pass her water she is obliged to get on her hands and knees and force the uterine mass back into the vagina. Her trouble is due to a prolapse of the womb, through hypertrophic elongation of the supra-vaginal portion of the cervix. The bladder is almost wholly outside of her body and that is why she has to pass her water in the manner described. I have not seen this case before. The doctor who examined her said that the uterine measurement was five inches, but I do not find it to be over four and a half inches. This shows that the uterine tissue is somewhat elastic, varying in length under varying conditions of traction. When the mass is outside of the vagina it gives a longer measurement than when it is pushed back into the vagina.

Here we have a tumor protruding, the ordinary term is prolapse of the womb, but it should be designated a prolapse of the cervix. The front of this mass is the anterior wall of the vagina and the bladder is behind it. The posterior wall is also, to a certain extent, involved. You see that there is a tear of the neck of the womb, and this very tear has been probably the initial point or cause of her trouble. Why? The unhealed cervical tear caused an irritation which invited blood to

*Delivered at the Hospital of the University of Pennsylvania; reported by Lewis H. Adler, Jr., M. D., Late Resident Physician at the Episcopal Hospital and the University Hospital.

the parts. This overnutrition caused growth and congestion, and these produced weight and traction. Hence the cervix was pulled down and with it the bladder which is fastened at that part. This elongation is covered with a delicate epithelium, which is very sore, almost raw.

Here comes the difficult point. We do not know whether the bladder began to prolapse as the first step in producing the condition existing in this case. It is a mooted question as to what causes this condition, whether it is produced by actual hypertrophy or by traction. Here is a woman who has had a tear of the neck of the womb causing cervical hypertrophy. When the bladder comes down she is obliged to bear down quite forcibly in order to pass her urine. This straining, aided by the weight of a full bladder, elongates the supra-vaginal portion of the cervix. We therefore believe this trouble here is due to traction.

Here then we have a vagina turned inside out. The danger in an operation in this case is of cutting into the bladder and into Douglas' pouch. We have no means by which we can measure the extent downward of the latter. In any event, we ought not to get into the bladder. Many a gynecologist however has done so. I generally pass a sound in the bladder and if I do not feel satisfied with the examination then I pass in my little finger. I have myself cut into Douglas' punch but never into the bladder.

The affection under consideration, usually occurs in women who have borne children, but sometimes you will find it occuring in old virgins, women sixty and seventy years of age. In such cases however it is not so large. Now the operation here would be to amputate the cervix, after which the wound would be closed up, by what we call "Hager's Spokes of the Wheel Suture." Forcible pressure is made by means of this suture and hemorrhage is thereby prevented. It will require in this case an amputation of one-half an inch of the cervix as there will then be absorption, by retrograde change, of the redundant portion of the womb. We have also to perform an operation to restore the torn perineum, which, in its present condition, affords no support to the internal organs whatever.

Afterwards she should be able to wear a pessary. There are very few women with this kind of malady who can wear this instrument. With these two operations and the subsequent use of Smith's pessary, we can, in a measure accomplish a cure. In these cases a gynecologist cannot promise to cure as he can in other operations. There may be a return of the disease in time. There is, however, very little danger in an operation of this nature.

This woman has just told me that I performed an operation on her torn cervix three years ago. I had forgotten the fact. She says I put thirteen stitches in. This operation did not do her any good. She was to have come back but never did.

Sometimes a woman will get pregnant and this trouble will return; sometimes even without the aid of pregnancy. One of the operations advised at the present time is to close up the vagina. That prevents coition. When a woman has not borne children and has this trouble, as she occasionally will, then in that woman the projecting portion of the womb looks like the male organ in a state of erection. These are cases which require amputation of the cervix. I think I have seen only a half a dozen of such cases. There is no earthly use in putting any kind of a pessary into this vagina, unless it is a stem and cup pessary. It is sure to come out.

SUPERNUMERARY OVARY WITH A VENTRAL HERNIA.

The next case is an interesting one of a most surprising diagnosis. The patient is twenty-eight years of age and has been married eight years. She has two children, the youngest four years old. She complains of constant pain in the region of both ovaries, worse on the left side. It passes along the left thigh into the knee-joint, showing that there is an ovarian nerve involved. She has back-ache and frequent vertigo. Her menstrual periods continue at regular intervals and last four days. According to her statements a year and a-half ago a physician operated upon her and removed her ovaries. Four months after the first operation she had, on account of pain and a continuance of menstruation, another laparotomy performed and the gynecologist said that the ovarian tissue had been removed. In spite of this her menstrual periods still continued.

She had two laparotomies performed. She asserts this positively, yet possibly it may have to be taken with some allowance. Notwithstanding these operations she is worse than before. I do not know that I shall be able to find the cause of her trouble. We have here a very excellent perineum; there has been a very trifling tear of it. You may also notice the remains of the hymen. She has had two children with no internal tear. It is a perplexing case to decide. I did look upon it as a case of adhesions of some intestinal loop and I still think such to be the case. We will first see whether the womb is movable. I pass in the uterine sound. There is a little resistance here which may be from the shortening of the ligaments by the operations. Now I give the sound a sharper curve, so that it will be impossible to turn it inside of the womb without twisting the womb itself on its axis. I find that this organ is in a fairly good position—looking a little bit to the right—there is no disease here. There is no resistance where I press it over to the right, so that there is no fixation of the organ for it is sufficiently movable. Now the next question is, why does she menstruate? That is the puzzle. I do not find anything out from this examination explaining the continuance of the monthlies.

I shall now make an examination per rectum to see if I can discover anything there. Yes, there is a body here on the right side which ought not to be there. It is about the size of an ovary and seems to be attached to the womb, as an ovary naturally should be. I can give some movement to it and it seems slightly cystic. But nothing but an exploratory incision will tell me what it is. This woman has a hernia, as a result of one of her former operations, but it can be cured by the operation I shall perform, if she only gives her consent.

I have told you of the possibility of supplementary ovaries, and also that in my cases, after a certain length of time, the patients all stopped menstruating.

I shall ask this patient if she will submit to an operation and act accordingly. Sometimes adhesions to the bowels produce a good deal of pain. Here we have a movable womb, no adhesions. What the body is that I felt per the rectum I am not prepared to say; it feels very much like an ovary.

The operation here would be to perform a laparotomy, removing the cicatricial tissues, which will be found existing in the reunited edges of the old incision of the operation, and then to bring the freshened edges of the abdominal walls together by means of silk and catgut sutures.

PYO-SALPINGITIS.

Here is a patient twenty-eight years of age who has been married eleven years. She has had two children, one is seven years old and the other eight. She had a miscarriage when three months gone about five years ago, and has not been well since. She has had metrorrhagia for five years, that is constant bleeding from the womb. She complains of pain in the left ovarian region. It is exaggerated by walking or by lifting. The symptoms look like those of some tubal trouble. She has leucorrhœa. One week out of four she spends in bed. She is very nervous naturally. She is obliged to go to bed because she has pain.

Before this miscarriage which she had she received a kick in the abdomen and the pains began in three or four days afterwards. This injury caused a separation of the placenta, and the ovum became a foreign body. Fortunately her womb was not large enough to hold much blood or she might have died from internal hemorrhage. She says that she had an attack of peritonitis after this kick, and has occasional attacks even at the present time. Yet the case may be one merely of nervous ovaries. Sometimes indeed it is difficult to decide whether we have a case of diseased, or of nervous ovaries to deal with.

I find in this case that the womb is turned over backwards—a suspicious circumstance. On the left side I find an enlarged ovary. The womb is badly retroverted. When this is the case after an attack of peritonitis, in the majority of cases, you will find evidences of some tubal or ovarian trouble. I pass in this uterine sound, and ascertain that the womb has impaired mobility. I should say that there is extensive disease there, but before this can be decided positively she will have to be etherized. There is probably a pus tube on the left side. I

mean by that, a fallopian abscess. She had a miscarriage which resulted from traumatism—from the kick. The blood escaping from underneath the placenta became putrid and septicæmia followed. The ovary is usually secondarily affected by inflammation. If she has pus there it explains her history of a good deal of groin pain, of trouble with the monthlies, difficult locomotion, etc.

The danger of death in these cases from bursting of the tube into the peritonial cavity is greatly exaggerated.

This might happen but it is a very rare complication. My advice to this patient is to submit to an operation, for she will never have another child, the ovaries being so diseased that she is practically without them.

NERVOUS OVARIES.

The last patient I shall show you today is aged 32 years. She has had five children, and has a slight tear of the cervix, but not bad enough to need an operation. She complains of backache and of constant pain in the ovarian region. Her menstrual periods are regular, but they upset her nervous system. The diagnosis in these cases is sometimes very perplexing. I get hold of some that puzzle me greatly.

Is this person suffering from the effects of a diseased ovary, or has she the affection rightly designated as "nervous ovaries?"

She has symptoms of diseased ovaries and yet they may not be organically diseased.

When we find a fixed ovary it is plain sailing; but when it is movable, it is often puzzling to decide, and many a woman has lost perfectly healthy ovaries by such counterfeits of organic disease.

I find that the patient wears a pessary, which keeps the womb in perfect position, so you can exclude that organ as a cause of the pain. She has all the symptoms of nervous ovaries. She dreams at night, has sleeplessness, nervousness arising from family troubles, etc. She has palpitation of the heart; has numbness in her hands, and sometimes thinks she is going to have paralysis.

The best treatment then is a preparation of bromide of some kind. Ten grains of ammonia bromide and five grains of ammonia chloride makes a good prescription. My Sambul pill is another good remedy. Then absolute rest in bed should be enjoined for an hour a day at least. No one should be allowed to even approach her room, if that is possible. Massage is most important and if this patient were able to pay for such treatment I should order her to have a person to rub her daily.

COMMUNICATIONS.

ABSCESS OF FRONTAL SINUS—REPORT OF CASE—OPERATION.*

G. A. WALL, M. D., Topeka, Kansas.†

Cases of abscess of the frontal sinuses are certainly not met with very often, while simple catarrhal inflammations of these sinuses are of frequent occurrence. It is for this reason that I report this case, and again the diagnosis and treatment being, as a rule, easy, it is well that you should know how to take care of a case should you meet one, which you are liable to do at any time during this season of the year when colds are prevalent. The operative procedure is not one so great, but that any one with the slightest knowledge of anatomy can do, and there is little if any risk to be taken.

The literature on this disease is not extensive, as most of the authors devote only a few paragraphs to it, some none at all. Bosworth[1] and Fowler[2] have written the most extensively on it. Bosworth's[3]

* Read before Eastern Kan. Med. Society at Topeka, Kansas, Jan. 12, 1893.

† Occulist and Aurist A. T. and S. F. Hospital Association.

(1.) Diseases of the Nose and Throat, Vol. 1.

(2.) Rex. Hand Book, Med. Science.

(3.) Op. Cit., Page 492.

article is complete and well worth your perusal.

As to the occurrence and causation of this disease, permit me to quote from some prominent authors. Bosworth says: While simple catarrhal inflammation ofthe mucous membrane of the frontal sinuses occurs in connection with a cold in the head more frequently than that of any of the other accessory sinuses, suppurative inflammation on the other hand is one of the rarest occurrences. This is probably due to the fact that the infundibulum opens from the most dependent portion of the cavity thus affording free drainage while at the same time it is less liable to become occluded." Zukerkandl states that he never met with a ‡ *single instance of uncomplicated disease* of the frontal sinus. Agnew[4] says he only saw one instance where the inflammation occurred in the sinuses independent of any pre-existing affection of the nasal passage. Noys[5] is also of the opinion that this disease is consecutive to some nasal trouble, for he says: "It is necessary in all these cases to examine the nasal cavities and sometimes the cause will be found in hyperthophy of the middle turbinated bone."

The disease may arise as the result of any condition causing occlusion of the orifice of the sinus or from any obstruction in the nasal passage, but Bosworth says that from these causes it is exceedingly rare. He thinks that the most active agents in its causation are traumatism, maggots in the nose, gonorrhœa, syphilis, scrofula, or the development of tumors within the sinus itself. The disease does not occur until after puberty, as the sinuses are of small size or entirely absent during childhood, after which time they undergo considerable enlargement from recession of the brain. Large frontal sinuses do not necessarily imply large external prominences over the glabella and supercilliary eminences. They are lined with mucous membrane which is the continuation of that from the middle meatus of the nose extending through the infundibulum.

The symptoms as given for this affection are: Frontal headache, generally intense and increasing as the accumulated secretions gather and distend the sinus; it is usually persistent although it may assume an intermittent type, being attended with nausea and vomiting; mental effort increases it. There will be swelling, an erysipelatous blush and oedema over the sinuses. There will also be rigors and fevers, anorexia and sleeplessness. In my case all these symptoms existed; but in a case reported by Dr. Lanphear, the only symptoms present were intense frontal headache and fever in the earlier stages.

If the pus accumulation is large and the exit obstructed the roof of the orbit may be crowded downward so as to produce displacement of the eyeball and diplopia, and amaurosis ensue. If the posterior wall of the sinus is displaced it will be indicated by symptoms referable to the brain, such as dullness or apathy and sleepiness. The brain symptoms are usually obscure for the anterior lobes, although Otto cites a case where displacement of the posterior wall of the sinus gave rise to unilateral paralysis. If the pus escapes into the brain cavity menigitis supervenes. And again, cerebral abscess may develope without perforation of the bony walls of the sinus.

The diagnosis will be easy as a rule, the symptoms I have given being present in part or together.

The following case came under my observation a short time ago:

On Dec. 28th, 1892, was called to Silver Lake, Kansas, in consultation with Dr. Dudley to see Mr. L. C., æt. 45, a telegrapher, who gave the following history: About three weeks ago he "caught cold," and the nose seemed to stop up; since then he has been having frontal headache, which has been increasing in intensity; temperature ranging about 101° F., with chilly sensations; swelling and oedema very great, extending across the forehead, especially on side corresponding to the affected sinus, down towards the base of the nose and into the orbit, at the inner canthus. There was an erysipelatous blush, and the parts around were very painful to the touch. At first sight it appeared as if the pus had penetrated the orbital plate, but on careful examination, no fluctuation could be felt and subsequent events proved that it had not. We concluded that we had a case of frontal

‡ Italics are mine.
(4.) System of Surgery, Vol. III., Page 117.
(5.) Noyes' Diseases of the Eye, 1890.

sinus abscess, and that the only thing to do was to open the sinus, which we did in the following manner: The patient being thoroughly anæsthetized, I made an incision one inch long just above the left eye-brow extending almost to the median line; the œdema being so great it was almost one inch in depth. I was compelled to make a vertical incision one inch long, beginning at the nasal end of horizontal cut. I then made use of the angle formed by the junction of the two incisions as a land-mark for the site of my perforation as it was very difficult to locate the proper position on account of the great œdema. The point of perforation being about ¼-inch above and internal to the inner angle of the orbit. I trephined at this point and a great amount of thick creamy pus escaped—I should say almost an ounce. The wound was then well washed out with a weak solution of bichloride of mercury and dressed with bichloride gauze. Owing to the fact that we had no drainage tube at hand no drainage was used. The operation was done at 3 P. M., and the patient rested well all the succeeding night. The following day I saw the patient again and found him doing well; temperature normal; pulse 72; no more pain or headache, and little if any discharge; swelling and œdema decreasing and patient feeling very contented. The last report was on Jan. 10th, at which time Dr. Dudley writes as follows: "I should regard C.'s condition as in every way favorable. There is some little discharge daily, probably the most of which is serum from the external wound. I wash it out with 1–5000 bichloride solution and follow with peroxide of hydrogen full strength. This has been the treatment all through the case. He has had no symptoms that did not indicate a favorable ending.

"Since the above was written a probe has been passed through the infundibulum into the nose, thereby establishing a free opening into the nose from the sinus."

AN ATTEMPT TO MAKE A RADICAL CURE IN THREE CASES OF HERNIA.

J. S. WRIGHT, M. D., Brooklyn, N. Y.*

The first case was one of congenital hernia of very large size. The second case was a large strangulated hernia in a healthy sailor thirty-seven years of age. The third case was a tightly strangulated hernia in a feeble woman fifty years of age.

Case I. November 12th, 1891, I went with Dr. Gunther to see W. W., a two-year-old boy, who had a very large congenital hernia of the right side. When the hernia was fully down it was as large as a child's head. It was easy enough to reduce it, but it was impossible to keep it up. I advised an operation for radical cure, even if it did not succeed, for the patient's condition could not be more unfortunate than it was. At my request the patient was taken to the College Hospital, where I operated December 20th, 1891. I operated as if the case were one of strangulated hernia. The sac was organically continuous with the musculofibrous structure of the scrotum, and after opening it, the large quantity of coiled up intestine could not easily be put back into the abdominal cavity; the intestine had to be held in, in order to prevent it from escaping. Then I dissected up the entire sac, testicle, spermatic cord, and the involved tissues as far as the internal ring. Close to the internal ring I put a strong cat-gut ligature around the neck of the sac and tied it firmly; then I cut off the entire sac, as well as the spermatic cord. The cord was atrophied, and was continuous with the connective tissue of the sac. It would have been quite impossible to close up the sac at its neck, without removal of the cord and the testicle. I closed up the entire wound with deep sutures with the intention of obtaining primary union. The soft parts were severely injured by the operation, and much inflammation followed, making it necessary to remove the sutures at an early day; yet the wound over the seat of

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the canal repaired by primary union. Four or five days after the operation the patient had a severe attack of scarlet fever along with other children in the same ward. The attack terminated favorably and did not seem to have any deleterious effect upon the reparative process. In the mean time the boy would get out of bed and amuse himself playing with the other children in the ward. The patient was discharged from the hospital February 2nd, 1892, apparently with a radical cure.

Case II. W. M., a sailor thirty-seven years of age, was admitted to the College Hospital, January 25th, 1892, having a very large strangulated hernia of the right side. A persistent effort to make reduction had severely contused the hernial sac and its contents. The patient was suffering severe pain and the shock was serious. The result of an operation was considered doubtful. I opened the sac in the usual way and found a large quantity of omentum which had been contused so that it contained considerable blood in its folds; and the omentum had been twisted into several dependent portions. There was a small part of the ileum in the sac, but it was readily reduced. The spermatic cord was dislocated from its usual or normal location, and was entangled in the omentum from the testicle upward to the abdominal cavity. The protruding omentum was quite irreducible, so I ligated it in three parts, one of which included the spermatic cord; another ligature was put on the spermatic cord just above the testicle; then the entire omental mass was cut away, and the stump put just inside the internal ring. The sac was dissected up as close as possible to the peritoneum, and the neck of it was tied with a strong cat-gut ligature and then cut off. The entire wound was closed with deep silk sutures. The part in the inguinal canal healed by primary union, and the part in the scrotum healed by granulation. This patient was allowed to get up in about five weeks. He went about the ward for two or three weeks more, and then began to help as orderly; he remained in this position for several months, and in the mean time seemed to have a complete radical cure.

Case III. A married woman, fifty years of age, February 24th, 1892, was sent to the College Hospital by her family physician. She was suffering from a strangulated hernia of the left side. The hernia had been down for about three days, and had been strangulated about twenty-four hours. When I saw her the hernia was irreducible, she was suffering much pain and the shock was severe. Her pulse was feeble and intermittent, and she had become indifferent as to the result, readily consenting to an operation. When I got down to the neck of the sac, I found the constriction very narrow, and could get under the upper band with much difficulty even with a small tenotome. When the knuckle of intestine was first exposed it looked as if it were gangrenous, but in a few moments the circulation began to be restored. And so confident were we that the strangulated intestine would recover that we put it back into the abdominal cavity. Then I dissected up the sac as far as the internal ring, and tied the neck of it with a strong cat-gut ligature, and then removed the entire sac. The wound of operation was closed completely with aseptic silk sutures; I caught the sheath of the femoral canal by the suture in order to prevent the hernia from escaping in the future. Primary union occurred throughout the wound; the opening through which the hernia came was obliterated, a firm wall of resisting material being formed. The patient made a good recovery and has had no return of the hernia.

The last case shows the importance of removing the sac or, at any rate, of obliterating the neck of the sac so as to restore the continuity of the peritoneum at the internal ring. In the second case the testicle had become so much atrophied as to be useless, and the spermatic cord had become so entangled in the omentum as to make it desirable and advisable to remove it, and thus facilitate the obtaining of a radical cure. This case only shows that the spermatic cord may be removed in exceptional cases. In the first case there was no visible spermatic cord, and the testicle was of the most rudimentary nature; an attempt to save it would have failed.

Hemorrhage from the Stomach or Bowels.—Tannic acid, ten to fifteen grains, if due to capillary oozing. If from typhoid fever or ulcer of the stomach, treat as for pulmonary hemorrhage.

TWO CASES OF SUPPURATIVE INTRA-PELVIC INFLAMMATION WITH SPECIMENS.

L. S. McMURTRY, M. D., Louisville, Ky.

Both cases are of long standing salpingitis associated with recurring attacks of pelvic peritonitis, going on to accumulations of pus and involving the ovaries and adjacent folds of peritoneum in the destructive inflammatory process.

In the first case you will observe that the fallopian tube is as large as the small intestine and filled with pus. The ovaries are cystic, a degenerative process often associated with long standing inflammation in the uterine appendages. This photograph shows the firm and universal adhesions which fortunately I succeeded in detaching without rupture, either of the tubes or the cystic ovaries. The patient is a young married lady, aged thirty-two, and had a history of long standing pelvic inflammation; a history formerly familiar to the profession under the mistaken and erroneous pathological term of "pelvic cellulitis." When suppuration occurred all the usual symptoms supervened, such as fever and sweats. The enucleation of these masses from the deep pelvis is rendered difficult by the dense adhesions which become organized, rendering injury to bowel and bladder a frequent complication. If removed early in the course of the disease the operation is less difficult and less dangerous. This patient made a good recovery.

The second case is also one of suppurative salpingitis and peritonitis of long standing; such a case as is usually designated as pelvis abscess. It is the only fatal one of a group of abdominal sections which I did last week.

The patient was thirty-four years of age; married; never robust and never conceived. She had undergone various methods of local treatment for uterine disease and about a year since submitted to forcible dilatation of the cervix for dysmenorrhea and sterility. Since this time she had active intra-pelvic inflammation. Seven months ago she became confined to her room and bed with symptoms of suppuration. She had high fever with rapid pulse and sweating, followed last autumn by rupture into the bowel and general septic symptoms. The opening into the bowel was small and the abscess sac was never entirely emptied. It would discharge for a time, then the opening would close and she would again have fever. I saw her in the autumn and advised immediate operation; the operation was done last Thursday. The patient had a feeble and rapid pulse and was reduced by prolonged septic fever.

As can be readily seen from the specimen the operation proved to be of exceptional difficulty. On the right side the fallopian tube and ovary were converted into a large pus sac, which was as large as the fully distended bladder. It was firmly attached by organized adhesions to rectum and bladder; it seemed continuous with both rectum and bladder. Its enucleation taxed my digital endurance to the utmost and necessitated great care to avoid injury to bladder, bowel and ureters. The appendages of the opposite side, as can be seen, were extensively diseased—a large pyo-salpinx and par-ovarian cyst. The operation was thorough, and completed in about thirty minutes. The patient was put to bed without any appreciable shock. Six hours after the operation the catheter showed complete suppression of urine, and this continued for fourteen hours, when the kidneys resumed their function. The pulse, however, remained high and death occurred from exhaustion on the fourth day.

The condition disclosed by operation in these cases is a plea for early interference in this class of cases. It is altogether an error to suppose that cure can be affected in such cases as this either by spontaneous opening into the bowel or by puncture through the vaginal vault. To examine this specimen will satisfy anyone upon this point. After discharging the sac re-fills, and septic infection and suppuration will go on for years if the patient can hold out, and then the cure will not be completed. The proper treatment of these cases, and the only treatment which can avail, is early and thorough removal of the suppurating mass before the patient is exhausted by prolonged suppuration. When the sac ruptured in the course of the operation in the second case reported the pus ran freely out on the table and was very offensive. The case illustrates the most advanced and extreme ravages of inflammation and suppuration within the pelvis.

* Read before the Clinical Society of Louisville.

SOCIETY REPORTS.

THE CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting of December 27th, 1892.

The President, Dr. I. N. Bloom, in the chair.

AMPUTATION AT THE HIP; RESECTION OF THE RIB.

Dr. A. M. Vance: I simply present this patient, boy aged eleven years, to the Society to show the result of amputation at the hip for suppurative hip-joint disease, and resection of the eighth rib for effusion in pneumonia.

The history of the case is about as follows: I first saw the patient in September a year ago and diagnosticated suppurative disease of the right hip-joint. As is often the case in children of this age, the course was rather rapid, an abscess forming in Scarpas' space with evidences of excessive bone disease. Aspiration was practiced several times without any great success. In March, 1892, the boy was put in the Childrens' Hospital and the abscess opened and irrigated. The opening was followed by a long season of sepsis without any reparative action whatever going on. At the time the abscess was opened I discovered that the partition of tissue between the femoral artery and the abscess cavity was exceedingly thin, therefore no drainage tube was inserted for fear sloughing would take place and at the time I prognosticated possible rupture of the femoral artery.

After a month of high fever, excessive discharge of pus from the abscess, hectic condition, etc., I was called by telephone to the Hospital at three o'clock one morning, the message being that the patient was bleeding profusely. Upon examination I found that the femoral artery had spontaneously ruptured into the abscess sac, the patient being thoroughly exsanguinated. The artery was ligated by candle light, and the leg wrapped in cotton wool and elevated. At the end of forty-eight hours the foot was gangrenous and, notwithstanding the fact that the patient was barely alive—temperature 104.5° F., pulse beyond counting—amputation at the hip was decided upon.

When the patient was put upon the table for operation his pulse was hardly perceptible at the wrist, probably about 170 to the minute. The femur to the extent of about four inches was found to be very much diseased and the acetabulum also being involved. I did not make any attempt to clean it, believing that nature would do so, my object being to get the patient off the table as soon as possible owing to his extreme condition. The time consumed in operation, from the moment anæsthesia was half complete until the dressings were applied and the patient put in bed, was about nine minutes. Whiskey and nitro-glycerine were given hypodermatically after the operation; reaction came on slowly; convalescence gradual. There was very little hemorrhage during amputation, the femoral having previously been litigated on account of rupture.

About two months after this he was taken suddenly sick, and it was found upon examination that he had an attack of double pneumonia, both lungs being extensively involved. He was still in a very hectic condition, having recuperated but little from the state of depression at which he had arrived, owing to the amputation. His case was given up as hopeless, all efforts toward helping him except to make him as comfortable as possible, being discontinued.

However, the crisis came on the third day after the attack, and he slowly began to convalesce. His right lung cleared up very nicely but the left one remained dull, apparently solid. Upon careful examination we found that there was an immense accumulation of fluid in the left side of the chest which was tapped three times; at the first aspiration we removed three and one-half pints of fluid; the second time two pints, and the third time two pints, a pint of which was pus. The heart at this time was beating way over to the right side, showing the extent of the effusion. The condition of the patient was now equally as alarming as before the amputation, and as the aspiration was doing no apparent good, I advised that

another chance be given him and the excision of a portion of the eighth rib be done.

This operation was performed about a week after the last aspiration, the chest being thoroughly washed out with hot water and two large drainage tubes inserted. Time consumed in this operation was seven minutes. Irrigating the cavity of the chest was done in a very thorough manner, throwing the water in through one tube it came out through the other, each inspiration working like a force pump. The drainage tubes were allowed to remain in about ten days, then removed and a pledget of gauze inserted, which was also removed in a few days, the wound healing perfectly. The patient has entirely recovered the use of his lung as will be observed by deep inspiration, and there is bony renewal of the excised portion of rib. I think this will be obtained in nearly all cases if the precaution is taken, as I did in this case, to slit the periosteum, turning it back and simply removing the rib itself, leaving the periosteum intact.

I consider this a very remarkable case, the patient having gone through two grave operations and double pneumonia, inside a period of three months. There is one thing certain, that without Hospital advantages, the boy would probably have died in either operation. There is now no evidence of tuberculous trouble, and I think his ultimate recovery is assured.

DISCUSSION.

Dr. W. C. Dugan: I had the pleasure of assisting Dr. Vance in the operations referred to upon this patient and I consider it one of the most remarkable cases on record. I also think that a case of this kind is extremely rare. Many would not have attempted an operation in such extreme conditions. Rapid surgery saved this boy's life.

Dr. L. S. McMurtry reported two cases of "Suppuration Intra-pelvic Inflammation, with Specimens." (Page 170)

DISCUSSION.

Dr. J. M. Krim: If I understood correctly, for fourteen hours after the operation there was complete suppression of the urine. I would like to inquire as to the quantity secreted after that time.

Dr. L. S. McMurtry: There were no general symptoms of suppression of urine. That the bladder was not injured was demonstrated by the fact that the patient afterward, without the aid of a catheter, passed urine which, of course, could not have been done had the bladder been injured. The suspension of the action of the kidneys for some hours after the operation is significant as showing the impaired nutrition from prolonged septic toxæmia.

Dr. W. H. Wathen: I do not know that there is anything I can add to what has been said about the first operation. The specimens of the second case are interesting, illustrating two diseases that are occasionally found co-existing in the pelvic cavity; one of inflammatory or septic origin, the other (the tumor) the result of some unknown cause. Had the case been operated upon before the abscess ruptured into the rectum the diseased structures could have been more easily enucleated and removed. But after rupture into the bowel, complications arise which make the operation difficult and dangerous, and we never know the conditions to be treated until the abdomen has been opened. Even then it is sometimes impossible to know the condition of all the structures in the pelvis until the operation has been completed.

The reporter stated that the water used in irrigation was coming through the drainage tube for twenty-four hours after the operation. I know of no instance where irrigation water remained in the peritoneal cavity that long. In cases of this character where I have used drainage —as my experience widens I drain less, but there are cases where you are compelled to drain—I have noticed that the irrigation water did not come through the tube or gauze very long after the patient was put to bed, but the discharge was of serum and blood from the torn structures.

The largest tubes or tumors are not always the most difficult to remove. I have removed pus tubes, as large as the one exhibited, where enucleation was comparatively easy, and have removed tubes much smaller where the enucleation was very difficult. I do not understand how such tough adhesions could form in such a short space of time, and I am sure they must have existed before the rapid dilitation of the uterus. The adhesions of a so-called inflammatory exudate and re-

cently formed peritoneal adhesions are, generally speaking, easily separated.

Dr. W. C. Dugan: I think the specimen teaches a very valuable lesson—that delay is dangerous in such cases. My experience with pyo-salpinx is that they are most all complicated with cystic ovaries. To discuss the case further would be to repeat what Drs. McMurtry and Wathen have stated, as they covered the ground.

LEUCOCYTHEMIA: APPENDICITIS.

Dr. A. M. Vance: I was called on the 29th of last November by Dr. Leachman to see a boy who had had since last March an enlarged spleen. The patient was about seventeen years of age and his spleen had grown gradually since it was first observed in the early part of March until the time I saw him, when it was enormous.

I was called to the case to stop hemorrhage from the nose, which had been going on for forty-eight hours and the boy was pretty well exsanguinated, showing his grave condition. Dr. Cheatham saw the case and the boy was still bleeding although I had plugged the nose from the front and posteriorly. The boy eventually died of hemorrhage from the whole alimentary canal. He passed large quantities of blood per rectum and threw it up from the stomach—much more than could possibly have come from the nose. Diagnosis had been made as Leucocythemia.

A post-mortem was obtained and we secured the spleen, liver and supra-renal capsule. The spleen and liver are exhibited for your examination. You will notice that both organs are enormously enlarged, the spleen being over a foot in length and weighed when removed nearly twelve pounds. The kidneys were also very much enlarged. Dr. Louis Frank has made several microscopical sections of both the liver and the spleen, which I have asked him to bring here to-night for your inspection, and upon which I hope he will give us some further information with the result of his repeated tests.

I was called by Dr. Baker on December 16th to see a man thirty-two years of age, a butcher, who had been suffering for twenty-four hours only with all the symptoms of acute appendicitis. He gave the history of having had some bowel trouble always preceded by diarrhœa, as was also this attack, but had never before been laid up. The man had a temperature of of 103.5° F. when I saw him and had had one rigor a few hours before. His pulse when Dr. Baker was first called was only 59 to the minute, and when I saw him, despite his fever, it was 72, which is a very curious element in the case. I advised and performed immediate operation.

I exhibit here the specimen removed, which is a very curious appendix. It was on the verge of perforation; was adherent to everything adjacent, and particularly to the omentum which had formed a sort of wall or sac around it. When I first introduced my finger and pulled up the appendix I thought it was very much enlarged. The appendix was tied off at the junction with the cæcum through reasonably good tissue; all of the omentum which came in contact with the appendix was removed; the wound closed with silk worm gut, a glass drainage tube being left in twelve hours. The man made a rapid recovery. I think if operation been delayed twenty-four hours longer, he would have had general peritonitis.

DISCUSSION.

Dr. Louis Frank: The exact measurements of the liver and spleen exhibited by Dr. Vance I do not remember, but they were much larger at the time of removal than at present, the liver especially having become considerably macerated. As yet I have not examined the kidneys nor the supra-renal capsule.

In the spleen, however, I found upon microscopic examination what appeared to be white infarctions, and with these some spots that appeared to be cheesy in character, those latter I found instead of being degenerated tissue were made up of dense connective tissue. The capillaries and larger vessels of the spleen were found to be filled with white blood corpuscles and no red ones at all. In the several sections made not a single red blood corpuscle could be found. In the liver there is some increase in the connective tissue which is due to round cell infiltration. Polynucleus cells being also found giving a true new connective tissue formation, caused probably by cells that had found their way through the thin vessels into this connective tissue. Also the capillaries between the individual cells

were very large, these cells being crowded to the sides and the capillaries filled in with white blood corpuscles. The cells in sections of the liver examined had undergone no degeneration at all, as we might expect to find from pressure, they were perfectly normal cells of the same size that we have in ordinary live tissue. The liver was rather soft when removed, a great deal more so than we expected to find. The spleen when removed weighed about eleven pounds, the liver a little over ten pounds. An examination of the blood taken from this patient was made by myself, also by Dr. Weidner, some weeks before death, and then the proportion of white to red blood cells was as one to two. This is very high, the ordinary proportion being one to six hundred. I have no doubt if the blood had been examined just before death the proportion would been even more than this.

DISCUSSION.

Dr. W. C. Dugan: I saw the patient referred to by Dr. Vance in the latter part of February or early in March, and he then had a large tumor extending down into the pelvis. The question of diagnosis in these cases is one of great importance. It is very simple when you examine for the notch, which is oftentimes overlooked. The notch in which the large vessels enter is always very marked and can be easily outlined. When this boy came to me the question was whether he was suffering from leucocythemia, or whether it was malignant disease. I was inclined to the diagnosis of leucocythemia and sent him to Dr. Simon Flexner; he being absent from the city at the time, his brother made an examination of the boy's blood and found the white corpuscles one to two. Of course when he made this report I decided it was not malignant in the sense that we usually use the term "malignant," and refused to have anything further to do with the case in a surgical way and he went back to his physician.

About a year and a half ago I was called by Dr. Larrabee to see a lady in this city who had a very large spleen, in fact one which nearly filled the abdominal cavity, and was asked if I thought it advisable to remove it. At first I thought very favorably of its removal—until I went home—then I consulted all the authorities on the subject that I had and found that there was no case on record that had recovered after such operation, and of course, I changed my mind. I made a post mortem in this case removing the spleen which weighed between seventeen and nineteen pounds, if I am not mistaken. In this case there was no apparent change in the liver or any other organs of the body. There are three forms of this disease; one form involving the medullary canals of the long bones; another involving the lymphatics, and the third involving the spleen. The pathology of the disease remains to be written. Such cases are universally fatal, most of them dying as did this boy, by hemorrhage. This disease is not so rare after all. I know of four cases in this city within the last two or three years, and doubtless there are others.

Dr. W. H. Wathen: I wish to emphasize the practical value of conservatism in the treatment of the case reported by Dr. Dugan. Surgery of the spleen has been very successful in many particulars considering the apparent difficulties with which we have to deal. Probably the desire to operate upon enlargements of this organ has caused men to perform the operation where it was contraindicated. There are probably very few surgeons engaged in abdominal work who appreciate practically the fact that there is no case, at least no well authenticated case, where extirpation of the spleen for leucocythemia has been successful. For that reason I say this case is especially opportune in bringing out this feature so that the profession may understand it.

Dr. J. W. Irwin: I regard these cases more in the light of medical curiosities than anything else. I have seen two cases of this nature within the last twelve years. The first was in an adult who lived in a malarious part of the country, and it was thought for a long time that he had an "ague-cake." When the case came under my observation, the spleen filled nearly the whole of the abdomen, giving the appearance of a person in the last stages of ascites. Of course the patient died and a post mortem was held; the spleen was found to weigh twenty-nine pounds; the liver weighed eight pounds.

The next case which came under my observation was in this city less than one year ago, in a child under one year of

age which was the offspring of healthy parents. The child had become so thoroughly anæmic that two or three physicians had been called and none of them would venture a diagnosis. One physician said it could not be cured, another said he did not know what the disease was. I made a careful examination and found the spleen very much enlarged, with apparently no enlargement of the liver. The child was profoundly anæmic and died. I am sure that the spleen filled three-quarters of the abdominal cavity, it was so enormously enlarged, notwithstanding the tender age. All that I could do was to prognosticate death.

Dr. J. M. Ray: Two years ago last September an Irish lad about nineteen years old consulted me about his nose. He was a great politician and on election night had been hit on the bridge of the nose. The result was a sinus leading down to the septum and on probing I found a piece of necrosed bone. By anterior rhinoscopy an accumulation of pus was found between the bone and periosteum of the septum. I made a small incision into the pus cavity and let out quite an accumulation; hemorrhage was very slight at the time. That afternoon I was out and on returning about 6 o'clock I found the entire office floor covered with blood. My servant told me that the gentleman whose nose I cut in the morning had returned and his nose had bled so furiously that he fainted and a carriage was called to take him home. I immediately went to see the patient and found him with the most persistent case of nosebleed that I ever saw. I plugged it behind and in front. Then the blood would come out of the sinus. I worked with him for three or four hours, and at last succeeded in stopping the flow. He came to my office again after four or five days and I then began to investigate the cause of the hemorrhage. He told me that at one time he had a tooth extracted and had considerable hemorrhage.

The case then passed from under my observation until the following summer. In the meantime I understand he remained in very good health. The following summer he consulted me for intense vertigo and deafness. In testing his hearing the tuning fork pointed to it as of nervous origin. He gave me the history that the deafness had come on suddenly about a week before I saw him. This of course put a new aspect upon the case and I began to further investigate, still did not make a diagnosis. I noticed at this time that he did not wear the top button of his pantaloons fastened, and upon questioning him he said that his abdomen seemed to be swollen so that he could not button his clothing. I then made an examination of the abdomen and found the spleen very much enlarged. I was led to make an examination of his eyes by the profound deafness and enlargement of the abdomen. Upon examination with the ophthalmoscope I found a typical illustration of a cut in Jaeger's Atlas of Ophthalmology, a pale straw colored fundus covered with peculiar patches and hemorrhages. Both eyes were involved, yet the sight seemed to be perfect. From these symptoms I made the diagnosis of leucocythemia. Subsequently I believe both Dr. Weidner and Dr. Frank examined the blood and pronounced the trouble leucocythemia. The man went on from bad to worse, growing weaker and weaker, and on several occasions had fallen in attacks of vertigo. He came to me one day and said he had something on his hip that he would like to show me. Upon examination I found an immense hæmatoma, probably as large as your doubled fist. In his vertigo he had fallen and said this lump appeared on his hip afterward. This disappeared in a few days and eventually he began to bleed from the gums and from the throat. In the meantime his abdomen had continued to increase in size until he was as large as a woman at the ninth month of pregnancy; distended veins running over the abdomen; his feet also became so swollen that he could not walk during his last two or three weeks of illness. Hemorrhage continued from the gums, then from the nose, then he began to vomit blood, then purge blood, and finally he died. I tried to obtain a post-mortem in this case, but was unsuccessful on account of objections on the part of his family.

While this patient was coming to me I saw in one of the medical journals arsenic recommended in cases of this character. I prescribed this drug which gave him more relief than anything else. He grew stronger and seemed to suffer less inconvenience from distension of the abdomen while under Fowler's solution.

Dr. L. S. McMurtry: The second specimen exhibited by Dr. Vance is a very in-

teresting specimen to me, and the subject is one that I do not think has ever been thoroughly discussed in the Society. We have had several cases reported but I do not believe the subject has ever been taken up methodically and discussed as it ought to be on account of its importance. I remember two years ago this winter I attended a meeting of the Surgical Society and reported two cases of abdominal section for appendicitis, with recovery. In the discussion that evening one of the fellows implied skepticism as to the existence of such a disease and expressed opposition to treatment by operative interference. I believe at that time there had not been a single operation for appendicitis done in Louisville. Since that time the operation has been done many times in this city; it has been done by Dr. Satterwhite, by Dr. Dugan, by Dr. Vance and by others. It is the most common cause of peritonitis in the male, and if we will take the Health Officer's reports as they appear in the daily paper every Monday morning, it is the exception not to find one, two or three deaths reported from peritonitis, which means that there was no diagnosis made because peritonitis is of itself not a disease. In cases of appendicitis we have yet to improve in regard to early operation. Now, this specimen exhibited to night had adhesions around it, but there was no extensive suppuration, and the operation was done before the pulse had run up and before the system was saturated with septic products.

There is one particular fallacy in regard to appendicitis that I would like to call especial attention to. We often hear the argument against operative measures, that one case or perhaps a dozen cases has been treated by conservative measures,—opium, poultices, etc.,—and recovered. And one case may be reported by five or six different physicians as having recovered, which is operated upon by the seventh physician. This will go on record as six cases of recovery from appendicitis without operation when the patient has never recovered and has been operated upon by somebody else. These statistics are used as an argument against operative interference when the patients have passed into other hands for operation.

A patient may have recurrent attacks of appendicitis and we never know when perforation will occur. I recently operated upon a little girl six years old with general suppurative peritonitis, where the appendix had sloughed off and came out with the irrigation water. The operation was done on Saturday at eleven o'clock and the girl was at school on Wednesday preceding. We never know when we have a case of this kind and the practical point is not only that operative treatment is the proper procedure, but we must take one step forward and let the surgeon see the cases sooner and let the operation be done sooner. If it is done early the majority will recover. The success of the operation in the majority of cases depends upon the time elapsing after the initial symptoms of the attack, until the operation is performed. I think the Society can with advantage discuss this very important subject and formulate something like definite data for operative interference—those symptoms which indicate immediate operation. In the case reported by Dr. Vance it was operated upon right in the golden moment. Only to-day a case came under my observation where the patient was passing berry seeds, etc., through an abscess that had broken through the abdominal wall from the appendix, indicating how common this trouble is and what risks are incurred by delay in operating. The operation when skillfully performed is not, of itself, dangerous; whereas delay with uncertain diagnosis is always dangerous in intra-abdominal diseases.

Dr. W. H. Wathen: This case illustrates the simplicity in operating successfully in some cases of peritonitis of appendicular origin. The dangers in operations of this character with an experienced surgeon are practically nil; but in other cases the operation is very difficult, and the results are often necessarily fatal because of extensive involvment of the peritoneum and abdominal viscera. This is a subject that has been discussed and written about *ad nauseam*. Every leading surgeon is practically familiar with the literature of the subject; and while there are some very beautiful results, the enthusiasm of some surgeons has pushed the pendulum too far and during the last two years it has begun to swing back. The man who does not go too far in either direction would probably be the safer man for this kind of work. Again, it is impossible to always tell whether the trouble is appendicular. Every surgeon of experience in abdominal work has observed cases in his operations

that have been diagnosticated appendicitis, where the appendix was not involved and the case was one of peritoneal trouble of some other origin. Again, there is no denying the fact that there are many cases where the subjective and objective symptoms plainly indicated appendicitis more marked than in many cases operated on, where the patients have recovered and are now, years after the attack, apparently well. I know of several such cases. No doubt there are many cases where death has resulted because the surgeon had not seem them sufficiently early—because of delayed operation. On the other hand there are cases that are not surgical.

Cerebral Concussion.

Miles (*Boston Med. and Surg. Jour.*) reviews the old theories of so-called concussion of the brain and concludes there may be a fatal injury to the head in which there is no appreciable gross lesion to the brain substance, directly or through its membranes. He does not consider the old theory of vibration tenable owing to the fact that the brain does not exactly fill the cavity of the skull; that there is between it and the skull a certain amount of cerebro-spinal fluid, and that the membranes fix the brain so thoroughly in position that any considerable displacement would be evidenced by lacerations. Nor does he consider that multiple hemorrhages are sufficient to account for the many and varied symptoms of concussion. He believes, however, that the symptoms are due to a derangement of the cerebral circulation, and he shows by experiments on animals that a severe blow on the head will cause very marked changes in the general circulation. The symptoms, therefore, are due to a profound disturbance of the circulation in the brain producing a condition of anæmia, which is due to stimulation of the restiform bodies.

The mechanism of the injury he considers to be: a blow is dealt to the cranial wall; surrounding the point of impact the skull is depressed; following the cone of depression from the area into which this cone bulges, the cerebro-spinal fluid is forcibly expressed at the opposite cone of the axis of percussion, forming a cone of bulging, which accommodates most of this displaced fluid; these cones, however, are only of momentary existence, the elasticity of the skull permitting the bone to return at once to its *status quo;* at each point, therefore, is formed a vacuum the result of which is that the blood vessels of the membranes and brain substance at this place are left for the moment unsupported, and rupture. This cone of bulging may be regarded as the true contrecoup, but Miles is so skeptical as to consider that most of the so-called fractures by contrecoup are really produced by direct violence; the patient, being struck on one side of the head, strikes the other side in his fall producing a fracture. A blow upon the frontal region or vertex will naturally produce the cone of bulging at the base of the skull and, therefore, the fatal cases of concussion are likely to be associated with peribulbar lesions.

By further experiment he finds that a sudden aspiration of cerebro-spinal fluid leads to extravasation of blood, but slow aspiration does not. A hard blow on the skull after the blood has been so removed gives a much less destructive lesion than when the fluid has been left in its normal position.

He concludes that the phenomenon called concussion of the brain is the result of a temporary anæmia of that organ; this anæmia is the reflex result of stimulation of the restiform bodies. These are also stimulated by the wave of cerebro-spinal fluid, which rushes through the aqueduct of Sylvius and the foramen of Magendie, and from the subarachnoid space of the brain to that of the cord, when a severe blow is dealt over the skull. This wave, in accordance with the laws of hydrostatics, would disturb the equilibrium of the ultimate nerve cells throughout the nervous system. The hemorrhages found throughout the brain substances and on its surface are to be ascribed to the recession of the cerebro-spinal fluid which naturally supports the blood-vessels. The small hemorrhage found in cases of so-called concussion, are rather an index of the force producing the injury than the cause of the resulting phenomenon.—*Abst.*

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SATURDAY, FEBRUARY 4TH, 1893.

EDITORIAL.

AN AGNEW MEMORIAL.

It is difficult for a community, at any time, to accept the decree that the work of a man like Dr. Agnew is done; that for one so loved for his wisdom, the purity of his life and unselfish devotion to his duty there was not much yet to do, and more time alloted to do it in.

By the right of great powers and many virtues, and the beneficent uses made of them, Dr. Agnew's memory should be secured to other generations than that to which he belonged. He did too much for those among whom he lived and to whom he rendered unselfish service, for them, without discredit, to fail to build some tribute to his memory—something to further the great causes to which he devoted all the energies of his mental and moral faculties; something typical of his noble example, of the purity and courage of his life, of his unselfishness to his profession and to humanity.

It is now, while the memory of his intense manliness and his effective work are warm with us, that steps should be taken to provide a memorial to a name associated with all that is best in the healing art, that will advance the work he loved and performed in so masterly a manner. Let it be one that will speak longer and more fittingly of him than could the most careful and eloquently written biography. It should realize what he did for the suffering and the grateful love they bore him, the expression of which can never be carved in marble nor traced in bronze.

There is no more splendid characteristic of his life than his unselfish devotion to the welfare of his fellow beings without regard to creed, condition or social position. He was ever in readiness for service. Few men in professional life have lived so unselfishly. The profession he chose as his life work is one primarily of duty. His work was a love, a religion which he served with unswerving faithfulness. Through all the busy years of his life he kept in it the enthusiasm of youth. His chief counsellor was an enlightened conscience.

It requires great courage to be a great

surgeon. He possessed that and more. His was not the boldness of greed, nor the recklessness of narrow ambition, but the fearlessness born of great convictions and tender human sympathy. It was a chivalric courage that made the timid braver in his presence. In his genial, kindly temperament, in the variety of his excellencies he was the ideal gentleman and physician realized.

His greatness was in disciplined strength rather than in specially inherited powers. He created his own opportunities and wisely made use of them. He may not have possessed that indefinable something akin to madness, which men call genius, but he was the embodiment of intelligent power—crowned withal with Christian humility and charity.

He wove his name and work closely into the interests and memory of the great community he so faithfully and unselfishly served. His was a ready sympathy with every form of suffering, and was manifested by acts rather than by words—the daily deeds of one hand unnoted and unknown to the other. No taint of insincerity marred his character. "He attained to the advantage of bringing every man of his acquaintance into true relation with him. No man thought of speaking with him, or putting him off with any chat of markets or reading rooms. But every man was constrained by so much sincerity to the like plain dealing."

Whatever may be the form of the memorial, those who knew him, one and all, will have some honored characteristic to recall. Those who were his students—his boys, as he was wont to call them—will ever preserve a fragrant memory of the natural dignity of his thought and deportment, and will treasure the lessons he taught with such rare impressiveness and rarer modesty. And always they will feel the stimulus of his great energy and courage, and will bear with them some impress of his strong personality.

In all that ethically concerned the profession, he had few peers. As an adviser he gave of the best he had. A conscientious consultant, he had no jealousies to warp his opinions which were always characterized by frankness.

As a writer he was clear, concise and vigorous. Bringing together the knowledge and experience of all medical science he subjected it to the rigid scrutiny of his mature judgment and, adding to it much of proved value in his own experience, gave to the profession by far the best text book of modern surgery. His work is not that of a mere copyist or translator, but has a distinct, strong individuality, and will furnish the foundation material for many a coming "treatise" on surgery.

But it is not as an author that Dr. Agnew's name will live the longest. The marvelous development of medical science, in all its departments, must inevitably render much of what he wrote obsolete. Moreover it is Dr. Agnew—the man, the skillful surgeon, the sympathizing friend, the helpful counsellor, the modest philanthropist, the unassuming Christian gentleman—whose virtues are to be perpetuated in some form worthy of the man.

The men of other countries, who seek home in ours, honor alike the country of their birth and that of their adoption, when they erect upon our soil memorials to the genius of their fatherlands. We erect on our public squares costly monuments in memory of martial spirit and martial genius. Why should we forget one of the noblest types of American private citizenship, who devoted time and talent to healing the wounds war made, and who spent his unselfish life in endeavoring to relieve the suffering of others?

The establishment, in connection with the University Hospital, of a children's ward has been suggested as a suitable form of memorial to our great surgeon. For various reasons this is a fortunate suggestion.

For many years Dr. Agnew's name was intimately associated with that of the University of Pennsylvania. There he gained laurels for himself and added lustre to the fame of the Institution. But most especially was it there that the influence of his strong personality and clear scientific teachings made the deepest impression on the profession.

The many thousands of University Alumni should see to it that any memorial of a friend and teacher so revered, should in some measure be adequate to his honor. In this form also it would be assured speedy accomplishment, and that without undue expenditure for sustaining *professional* philanthrophists.

Nor need the movement be confined to the Alumni of the University. Hundreds of public spirited men, who knew and loved Dr. Agnew in life and appreciated the stalwart manliness of his character, have a common interest and pride in his name and fame. It would be their pleasure, and duty as well, to aid such a work of love, honor and gratitude.

It is to be sincerely hoped that immediate and organized effort will be made by the old students and friends of the great surgeon and teacher, to erect some fitting tribute to his memory—such as will not alone honor his name, but be one of the prides of our great city. If it be not a children's ward or an addition to the University Hospital, let it be something else worthily representative of the meaning his life and work had for his fellow's—wide-reaching in the spirit of its benevolence.

TRANSLATIONS.

INFECTIOUS ERYTHEMAS.†

Hutinel has carefully investigated the erythemas attendant upon infectious diseases as occurring in his service at the Children's Hospital. The characteristics of these cutaneous manifestations studied from different clinical points of view, the pathological anatomy and the miscrobiology are essentially the same, whatever may be the primary disease (typhoid fever, diphtheria, measles, scarlatina, angina, etc.,) and the author has thus been enabled to group them into one general pathogenic study. The infectious erythema may follow in the course, at the decline or during the convalescence of the preceding disease. Clinically it is characterized by macules, or blotches, more or less extended, but slightly elevated and transient, and having at times a marked tendency to become ecchymotic. The eruption commences at the wrists, the elbows, the knees, the malleoli, on the upper part of the buttocks, rarely on the neck. It remains at times fixed in these points of election, but ordinarily it invaded the back of the hands and the fingers, the fore-arm and arms, the dorsal surface of the feet, the front of the legs and thighs. The back, breast, and abdomen are more rarely invaded; the face only exceptionally. The progress of the eruption is usually centripetal. Its forms appertain to the different varieties of polymorphous erythema: linear, circular, papular, measly, scarlatiniform non desquamative, scarlatiniform desquamative relapsing. At times purplish spots are associated with the polymorphous eruptions. In spite of the apparent variability of their forms, a variability that depends very much upon the manner in which the skin reacts in the different subjects to the irritating agent, these eruptions have common characteristics. The different eruptive forms may co-exist, follow each other or transform themselves in the same patient; the confluence or the limited extent of the eruption does not have any connection, slight or great, with the gravity of the general phenomena. The erythematous patches are generally symmetrical, transient, and disappear without leaving any trace. They are never associated with a similar eruption upon

†Translated for The Medical and Surgical Reporter, by W. A. N. Dorland, M. D.

the mucous membranes; but, on the contrary, often there exist ulcerous lesions upon the lips, mouth, pharynx, etc., to which Hutinel attributes considerable importance as the points of entrance of the secondary streptococcic infection which becomes the pathogenic cause of the infectious erythemas. In *typhoid fever,* in numerous cases otherwise benign, Hutinel has witnessed a veritable epidemic of infectious erythema, grave and even fatal in some cases. The eruption always appeared after the second week, either in the course of the descending oscillations, or after the definite fall of the fever, or at a period more or less advanced in convalescence. In *measles* the frequency and the gravity of the eruption appeared favored by the atmosphere of the hospital and by the coëxistence of purulent bronchitis and broncho-pneumonia with streptococci. The erythema in *diphtheria,* noted by most of the authors, appeared more commonly in children than in adults. It showed itself either in the beginning of the disease, in which case it was generally benign; or at an advanced period, where it was much more serious and often fatal. In these cases there is almost constantly noticed lesions of the lips (fissure, pseudo-membranous exudate,) of the mouth, (ulcerations, diphtheritic false membrane,) of the nose and of the throat (reappearance of the false membrane with streptococci, the specific bacillus of diphtheria having often disappeared.) Hutinel also noticed secondary infectious erythemas, benign or grave, at the close of *scarlatina*; in the course of certain anginas with streptococci (all followed by recovery,); in the course of certain choleriform diarrhœas; in affections of the urinary passages; in intestinal lesions; in pyogenic infections, etc.

The malignant forms of the infectious erythema generally accompanied grave phenomena; livid face, pinched nose, stupor, emaciation, tendency to cyanosis, thermic elevation followed by subnormal temperature, then finally by hyperpyrexia, slight troubles of the intellectual functions, profound prostration, vomiting, green fetid diarrhœa, scanty urine at times albuminous. Certain symptoms predominate according to the nature of the primary disease: gastro-intestional phenomena, prostration, and thermic disturbances in typhoid fever; respiratory trouble and broncho-pneumonic manifestations in measles; puffing of the face, albuminuria, cardiac troubles in diphtheria. At the autopsy the liver is found enlarged and fatty, the spleen a little hypertrophied, Peyer's patches and the mesenteric ganglia tumefied, but slight renal lesions, and concomitant alterations of the respiratory organs common to all of the infectious diseases. The blood is brownish black, but does not contain microörganisms. These are not found either in the affected skin or in the hepatic tissue. There is therefore room to admit, in the absence of micro-organisms, rather a poisoning of the blood and fluids by soluble products, a poisoning comparable to that which plays so important a rôle in diphtheria. The *treatment* should be especially prophylactic; antisepsis of the mouth, nose, and pharynx, isolation of the patient, hospital hygiene, etc. (*Archiv. gen de med.*, Paris, Sept. and Oct., 1892.)

CATARRHAL NEPHRITIS IN SYPHILIS, TUBERCULOSIS AND LEPROSY (LEPRA).†

Lancereaux states that these diseases, which resemble one another as much in their origin as in their anatomical manifestations, may present in the course of their evolution three varieties of alteration in the kidneys, each having a different signification, which it is important not to confound. In the first place they directly influence these organs and determine in them disorders identical with those which are produced in the viscera; thus syphilis produces in them gummata and a circumscribed interstitial nephritis; tuberculosis, tuberculous lesions *en masse* starting at the Malpighian pyramids, or disseminated tubercules; leprosy, the leprous nodosities, or a cirrhotic nephritis.

In the second place, in some cases there

†Translated for the MEDICAL AND SURGICAL REPORTER by W. A. N. Dorland, M. D.

follows in an advanced stage of these diseases, a peculiar degeneration of the vessels and renal parenchyma designated by the name of *amyloid,* or better *leucomatous, degeneration.* Each of these diseases, finally, at some time in the course of its evolution gives rise to a nephritis similar to the pyretic, and especially to the epithelial or catarrhal nephritis, which has at times been recognized under the name of the *great white kidney.* But these three classes of affections, clearly distinct, as much by their localization as by their clinical manifestations and course, do not have the same bond of union with the diseases in the course of which they show themselves. Those which compose the first series, and whose localization is in the vessels and the connective-tissue stroma, are associated manifestly with the general disease, syphilis, leprosy, or tuberculosis. The lesions which make part of the second series, very different in nature, characterized by a hyaline deposit in the tunics of the vessels, belong rather to the state of decay of the organism caused by the primary disease; those of the third category can no more than these last, be under the direct defendance of these diseases, because of their localization in the epithelum,—entirely different from the fibro-vascular localization proper to each of the diseases in question—their evolution and their mode of termination.

The catarrhal nephritis of syphilis, leprosy and tuberculosis is similar to the nephritis of pregnancy and that of pyrexia in that it is only the indirect effect of these diseases; or rather that it seems to find in them the proper elements for its development. Unfortunately just what these elements are is at present unknown, but if a comparison is made between this and the nephritis of pyrexia, which has the same anatomical localization, it is but natural to suppose that they might have a similar origin and associate themselves with the secretion of toxines created by the specific disease. This is a purely hypothetical view, it is true, but it does not destroy the distinction which has been made between the forms of nephritis occurring in the course of syphilis, leprosy and tuberculosis.

The catarrhal nephritis observed in the course of these diseases begins at an early period of their evolution, in the first or second phase rather than in the last, as distinguished from the specific nephritis and so-called amyloid degeneration. In syphilis, for example, the catarrhal nephritis shows itself during the secondary period, rarely later; and always in tuberculosis and leprosy this affection appears before the last stage.

The onset of this nephritis, usually quite abrupt, is manifested, following a fatigue or a chilling, by a diminution in the quantity of the urine and by the appearance of an œdema, at first limited to the face, scrotum and limbs, but quickly becoming general. At the same time is experienced a tired feeling; soreness and weight, if not pain, in the lumbar region; and, in a certain number of cases, a febrile state, which may be unrecognized. This group of symptoms conduces to an examination of the urine, which is small in amount, cloudy and colored, of a reddish hue, with a specific gravity of 1020 or over, giving with nitric acid and heat an albuminous precipitate in the form of large flakes of a milky whiteness. The deposit, as shown by the microscope, is composed of altered epithelial cells, hyaline or epithelial casts, leucocytes and, more rarely, red globules. The swelling of the face and the anasarca persist, there is a gradually increasing pallor of the skin, the anemia becomes excessive, appetite is lost, digestion is disordered, sleep is disturbed, there is a loss of strength; then in some instances the serus extravasations limited to the subcutaneous cellular tissue, invade the pleural, peritoneal and pericardial cavities and gives rise to dyspnea in proportion to the degree of effusion.

Such are the phenomena which mark the first phase of the catarrhal nephritis in question. To these are added, at the expiration of a variable period of time, the symptoms of uremia which characterize the second stage. Vomiting now follows immediately after the ingestion of food; it is composed in part of this and partly of a scanty fluid, grayish or slightly greenish in color, and is repeated ordinarily several times in the day. It is nearly always accompanied by constipation, but at times the stools are liquid, whitish or greenish, passed readily and without acute pain. Under other circumstances nervous symptoms make their appearance, often grave enough to compromise life. There is shortly developed an intense dyspnea, if not a most painful orthopnea,

frequently accompanied by severe pains which the condition of the thoracic viscera will not account for. Insomnia and an intense cephalgia of the frontal, temporal and occipital regions appear, compared by the patients to a compression of the entire head similar to the sensation produced by a heavy helmet. Convulsive seizures having all of the characteristics of eclampisa, and in some cases oft repeated, sap the strength of the patient, and delirium and coma, more of less profound and dangerous, may be noted. The urine now is less abundant and but four or five hundred grammes may be passed in the twenty-four hours. The proportion of albumin is considerable, but the quantity of urea and salts is diminished.

The kidneys under these circumstances present alterations scarcely different in spite of the diversity of the specific diseases. They are tumefied, elongated and swollen; their volume may be double the normal. Their consistence is soft, at times unctuous, and their color sometimes violet and whitish, sometimes dark-grayish dotted with disseminated white spots. The two colors show clearly upon the surface of a section; for if the medullary substance is simply violet, that of the pyramids presents a whitish lardaceous aspect quite distinct. Moreover the excretory tubes which constitute the pyramids, as well as the vessels that are distributed to them, are not modified; while the secretory tubes, which enter into the composition of the cortical substance, are always profoundly altered. These tubes, in truth, enlarged and distended, have their lumen narrowed by the tumefied epithelium; this epithelium is infiltrated by proteid and fatty granulations; the cells are deformed, or even reduced to fine debris, which together with the hyaline cylinders, obstructs the uriniferous tubules and places an obstacle to the passage of the urine. The glomerular epithelium is ordinarily less modified. As to the vessels and connective tissue stroma, they do not present any appreciable abnormality.

The diagnosis of this form of catarrhal nephritis is generally easy. It is based upon the diminution of the urine—its color, density and microscopic characteristics and also upon the anasarca and most marked albuminuria. This nephritis, which most writers have confounded with the specific nephritis proper to each of the diseases in question, is distinguished clearly from the latter both by its anatomical localization, and by its clinical phenomena. Effectively, the essential seat of the alteration is the secretory epithelium in one case, the vessels and the connective tissue-stroma in the other; localizations so different can never arise from the same cause. The lesion, always partial and asymmetrical in the nephritis which depends directly upon syphilis, tuberculosis, and leprosy, is generalized and symmetrical in this catarrhal form; the albuminuria is slight and the anasarca ordinarily absent in the former, whilst the albuminuria is abundant and the anasarca considerable in the latter. Thus, none of the symptoms proper to these affections are similar, and, in consequence, it is not possible to confound them, or to attribute to them a common origin. It is much more difficult to establish a diagnosis between this form of catarrhal nephritis and amyloid degeneration of the kidneys. However, the abundance of the urine, its faint color and low density, the absence of hyaline casts, are especially characteristic of the leucomatous nephritis, and suffice to distinguish this affection from the nephritis in question.

The prognosis of catarrhal nephritis in these subjects is always grave, since to a disease very serious in itself is added a condition which constitutes a true danger. The method of combating the symptoms of renal inadequacy varies with the stage to which the disease has advanced. Early in the course dry, or even wet, cups are indicated over the renal region, together with stimulating frictions of the surface followed by a hot bath. An exclusive milk diet is essential. If these simple measures will not suffice, the tincture of cantharides, in five or six drop doses may be administered. Should uremic complications appear, drastic purgatives are urgently indicated. While treating this complication of the original disease, whether it be syphilis, tuberculosis or leprosy, it is not necessary to pursue the specific treatment of the primary disease.—*Le Bulletin Medical*, Jan. 11, 1892.

Little Sister—"Mamma says Mr. Nexdoor is sufferin' from a complication of diseases."

Little Brother—I guess that's so. I've seen three different doctors go in there this morning."—*Good News.*

The Treatment of the Pedicle in Abdominal Hysterectomy.*

Boulengier mentioned the following new methods of operations for Myoma in a discussion at the Belgian Gynecological and Obstetrical Society.

1st. The method of Leon Desguin at Antwerp, who fastened the integument beneath the elastic ligature around the stump and holding this in place by the pedicle pins, protecting the ends by gauze compresses.

2nd. The treatment of Lauwers of Courtrai, who sometimes treats the stump extra-peritoneally by applying a ligature which remains in situ (24 or 48 hours,) until hemorrhage is thoroughly controlled; the ligature is then removed, the stump allowed to retract, and the abdominal wound closed. He reports three cases with rapid recovery.

3rd. The method of Rouffort of Brussels, is total extirpation; he removes the stump through the vagina and controls hemorrhage by clamps.

4th. De Baisieux, of Lowen, uses an elastic ligature which is united with silk threads; the long end of the silk is allowed to come out of the lower angle of the wound, while the stump is allowed to drop back into the abdominal cavity. This has been previously covered by iodoform gauze, the end of which is also allowed to pass out at the lower angle of the wound. Two or three days after the operation this gauze is removed and replaced by a new piece (up to the second week.) After five or six weeks the elastic ligature is withdrawn by the silk thread which has been allowed to hang out. Three operations have been performed in this manner with success.—*Presse Med. Belge,* XXIV, 12. 1892.

Subcutaneous Injection of Fowler's Solution.*

Popow speaks of two cases of malaria successfully treated by subcutaneous injections of Fowler's solution.

1st. An old man whose history is given in detail, and who seemed to be suffering from chronic malaria, and in whom the treatment with quinine had been unsuccessful. The condition of the gastro-intestinal tract prevented the administration of arsenic, so the author concluded to try subcutaneous injections of the above named solution. The first three days there was a dose of 0.4 ccm. of the undiluted solution. The following three days, the dose given was 0.6 ccm., and five days later 0.8 ccm. and then three days after 1.0 ccm. Besides this he received later for six times 0.8 ccm. and twice 1.0 ccm. Almost immediately after the first few injections a marked improvement was noticed. The temperature became normal, the former dyspeptic symptoms disappeared, the liver which had been enlarged began to contract, jaundice disappeared, as did also the œdema which had been present.

The second case was that of a young girl. The diagnosis was made by Professor Sacharjin, of masked malaria and chronic anæmia. An examination of the blood showed three millions of red blood corpuscles in 1 c. mm., and 75 per cent. of hæmoglobin. The patient received fifteen injections of the undiluted solution, 4 times 0.4 ccm., twice 0.5 ccm., 3 times 0.6 ccm. and 6 times 0.8 ccm. The result after this treatment was that the violent pains in the head disappeared, the enlarged spleen could no longer be detected by superficial palpitation, and the general condition was good. The examination of the blood revealed four millions of red blood corpuscles in 1 cmm. of blood, and 90 per cent. of hæmogolobin. The patient increased in weight.—*Medizinao* IV, 1, pp. 1–5. 1892.

Contributions to the Total Extirpation of Uterus per Vagina in Malignant Disease.*

Rossier of Basel, reports a hundred cases of carcinoma of the uterus, seen at Fehling's Clinic, from June, 1887, to the end of 1891.

Of these, 25 vaginal hysterectomies was performed. In two it had to be finished by combined laparotomy. After two years there were 23.8 per cent. free from return. There was but one death among the number operated on in which the post mortem showed peritonitis and carcinomatous degeneration of the retroperitoneal glands. R. places great stress upon early diagnosis and operation as a means towards a cure.

*Translated for The Medical and Surgical Reporrer, by Marie B. Werner, M. D.

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Hepatic Insufficiency in Mental Diseases.—Hepatic Insanity.†

According to Klippel, among the mental diseases in which hepatic alterations have been observed at the autopsy, or during life by the process of modern biochemy, one group is formed by the affections where the hepatic lesion is secondary (sometimes inactive as in general paralysis, sometimes influencing the psychical troubles as in alcoholism); another group includes those cases in which the hepatic lesion is primary and appears to provoke the alienation; this is hepatic insanity. The hepatic lesions of general paralysis are the nutmeg liver, red atrophy, patches of decoloration, fatty degeneration, cirrhotic and vaso-paralytic congestion (decolorized patches, dilatation of the capillaries with hemorrhages, diapedesis, cellular compression and cirrhosis). The hepatic lesions of alcoholism maintain, perhaps, the delirium in the cases where this persists notwithstanding the suppression of alcohol in the cases where the brain is but slightly injured. The author has observed a case of maniacal excitation slightly resembling acute delirium, slightly general paralysis, which died in three months without cerebal lesions, but with granulo-atropathic degeneration of the liver. He has also seen a delirium of chronic evolution without other lesion than a latent cancer of the liver. He compares these facts to the nervous manifestations of phosphorous poisoning, and concludes that insanity may follow when the liver does not suffice for the elaboration and the destruction of the organic substances.—*Archives gènèrales de Med.*,

Contributions to the Surgery of the Gall-bladder.*

Mermann gives a detailed report of operations on the gall-bladder done at the clinic at Heidelberg.

Five cases were Cholecystotomy; one a bloody dilatation of a pre-existing fistula; three ideal Cholecystotomies, three Cholecystenterostomies; two for extirpation of the gall-bladder. The indications for the surgical interference in these cases has been presented by Czerny in the (*Deutsch. Med. Wocha.* 1892, No. 23.

†Translated for The Medical and Surgical Reporter, by W. A. N. Dorland, M. D.

*Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

A Contribution to the Study of Fish Poisons.*

Drs. Fischel and Enoch have investigated this subject and arrived at the following conclusions. 1st. There exists among the fish a bacterial poison. 2nd. This in all probability originates from spore infection which gains entrance through abrasions or wounds. 3rd. The symptoms of this infection can be referred to the formation of a poison which has been propagated in the animal and is an albumose. 4th. This is identical with that of the bacteria Laprophytic formed from Toxalbumose. 5th. The infection can be found in some warm blooded animals and expresses itself by a paralysis of the respiratory and circulatory centers, also of paresis of the extremities. 6th. The infection can take place in the intestinal tract, after large ingestions of this poison. 7th. This poison is destroyed by boiling. 8th. By improper preparation of the fish as food this poison can be assimilated by the human being and produce the symptoms of poisoning.—*Fortschs. d. Med.* X. 8., 1892.

Auto-suggestion.—The Kitsune-tsuki.†

The kitsune-tsuki, or possession by foxes, is a curious mental affection observed in Japan and associated with internal hallucinations and a double personality. Foxes are the object of a superstitious belief on the part of a large proportion of the population, who attribute to them the power of assuming the human form; moreover, at times these animals choose the body of a living person as their dwelling place; the possessed then undergoes a veritable doubling of personality; he hears and understands all that the fox says and thinks, the latter speaking in a strange voice, quite different from the ordinary accent of the patient. This disease, according to Baret, appears to be a neuropathic delirium whose form is explained by the special superstitious ideas of the country. The treatment should be suggestive or rather exorcistic. The expulsion of the beast leaves the patient extremely prostrated, this prostration persisting one or two days, after which he frequently has lost all conciousness of the event.—*Jour. d'hyg.*, September, 1892.

*Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

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ABSTRACTS.

OVARIAN DERMOID TUMORS.

Dr. J. Nigel Stark, reporting a case of "Ovarian Dermoid Tumor," says (*Edin. Med. Jour.*), concerning the development of such tumors.

Dermoids seem more liable to cause pain than other kinds of ovarian tumors. Probably the visible growth of most ovarian dermoids begins at puberty, when they participate in the development that then occurs in all the pelvic contents, and then by their slow, steady enlargement, they produce the distressing pressure symptoms,—rectal and vesical irritation, inflammatory attacks, dysmenorrhœa, etc.

As regards their frequency, Sir Spencer Wells says he met with 10 in his first 500 ovariotomies, and 12 in his second 500. J.B. Hunter states that they form between 3 and 4 per cent. of ovarian cysts. So far as I can judge the proportion is about 2 per cent.

Dermoids have been described as "cysts or tumors furnished with skin or mucous membrane (which may or may not be accompanied with the appendages peculiar to these structures), occurring in situations where skin and mucous membrane are not normally found." These appendages may be hair, teeth, bones, sweat-glands, sebaceous glands, etc. During the past few years much patient study has been bestowed upon dermoids; this cannot be wondered at, upon consideration of their peculiar structure and mode of formation. Doran, in his *Tumors of the Ovary, etc.* (1884), says we can only indulge in speculations regarding their origin, but that "the dermoid ovarian question appears to be closely and inseparably linked with some of the most profound mysteries of human life."

I shall mention very briefly only two of the earlier speculations as to their origin, as we have now reached some definite truths which enable us to form what is at least an exceedingly probable hypothesis. Elsner's theory was that they are all embryonal in their first structure, as they occur in places where the epiblast dips down to meet the hypoblast, and where by processes of grooved involution new bodies are formed, first in order being the testicle and ovary. Lawson Tait says that "the ovum has in it origin buds of certain tissues which, under exceptional hyperechetic action, may go on to the rudimental formation of these tissues without a fusion of the male germ." Bland Sutton, however, has brought forward a mass of evidence which demonstrates the fancifulness of such explanations, and proves the true explanation to be found in the identity of ovarian follicles with the acini of glands; or, putting it otherwise, in the fact that the follicles are mucous crypts. "Therefore, as the membrana granulosa is potentially mucous membrane, and as skin and mucous membrane are convertible structures and morphologically identical, cysts of the ovary containing skin or mucous membrane and their appendages are not more remarkable than cysts and neoplasms occuring in connection with other glands."

The study of the evidence which leads to these statements is of deep interest, and it is also so full of instruction that I shall now endeavor to gather it together in as concise a fashion as possible. And, in the first place, it is a universally accepted truth that skin and mucous membrane possess the same structural characters; it is also well known that the columnar cells of mucous membrane may undergo modification into the stratified cells of epithelium, as, to take a common example, in the case of hemorrhoids originally internal in situation, but which have become external to the bowel. In the study of comparative anatomy we learn that all the usual structures of epithelium—pigment, shell, hair, sebaceous glands, sweat glands—are also existent in the mucous membrane of various vertebrates. And, lastly, in this connection, the mucous membrane of the mouth, pharynx and conjunctiva has the same embryological derivation from the epiblast as has epidermis. Note also that dermoid cysts may contain mucous membrane and mucous glands as well as epithelium.

And now we have arrived at the point where the question as to the origin of ovarian cysts arises; but this confronts us with several difficulties, chiefly on account of the diversity of opinion given by dis-

tinguished observers who have made careful study of the subject. It appears to the ordinary reader an impossibility for him to form any definite conclusions. So far as my own reading and observation extend, I have a decided opinion that cysts of the ovary nearly always arise from changes in the follicles. In a case which I carefully examined, the follicles could be distinctly seen in every stage of degeneration, and Doran, Sutton, and others have narrated similar observations. That there may be other modes of origin is probable, but still the fact remains that most ovarian cysts arise from degenerative changes in the follicles. Taking this for granted, we now note that each follicle is lined by the membrano granulosa, which is composed of columnar epithelial cells, and secretes the liquor folliculi. Now, an ovarian follicle passing through the various stages to become a multilocular cyst may retain the simple lining of epithelium upon the loculi, or else the epithelium may undergo growth; diverticula are sent off, and in this manner the immense number of cysts formed. The cells lining these cysts are different in appearance to those of the membrana granulosa, but, as we have seen, it is admitted that epithelium does change its character according to circumstances, and is also readily convertible into mucous membrane. So far the case is pretty evident and capable of proof, but now, as Sutton says, "the mystery up to the present time has been to definitely account for the origin of glandular tissue in such cysts, for it is well established that adenomata can only arise in connexion with pre-existing glandular tissue." He then goes on to say that as the membrana granulosa secretes the liquor folliculi, it therefore possesses the functions of a glandular structure, and that we must compare ovarian follicles and glands in general, "in order to ascertain if any phylogenetic justification exist for their extraordinary behavior." The latest investigations upon the development of ova and ovarian follicles show that the cells, which Foulis and others proved to be germ epithelial, and from which the ova and follicles are derived, are of the same nature as those cells which in the bowel form the mucous glands. From a developmental point of view there is, therefore, evidence of the identity of the ovary with a secreting gland, and on morphological grounds this can also be proved. For example, the ovary of the frog in the breeding season consists of a main cavity with numerous diverticula which are lined with cells. Some of these cells are larger than the others and are really ova. In mammals the more complicated structure with which we are familiar replaces the simple gland as seen in the frog, but essentially it is the same, the acini of the gland becoming represented by the follicles. Looking at this question from a pathological standpoint, we find the most intimate connection between the diseases which attack ovarian follicles and those sometimes existing in the acini of other glands, such as the mammæ. Thus, link by link, the chain of evidence has been formed which leads to belief in the opinion that ovarian follicles are identical with the acini of glands, or, otherwise, are mucous crypts, and, as we have already proved and stated, the membrana granulosa is potentially mucous membrane, and therefore identical with skin, so that, as we previously said, cysts containing skin or mucous membrane and their appendages are not more remarkable than cysts and neoplasms occurring in connection with other glands."

VIBRATORY MEDICATION.

Prot. J. M. Charcot, of Paris, (*International Medical Magazine*) speaking of the application of rapid and continuous vibrations to the treatment of some diseases of the nervous system, states:

"At first the effect of mechanical vibration was tried on patients who had hysteria. A very large tuning fork was mounted on a sounding box and set in motion by a bow. This system gave Dr. Vigoroux good results in hemianæsthsia, and caused a certain class of contractions to relax. In a case of locomotor ataxia he succeeded in relieving the pains by placing his patient's legs in the sounding box. In fact, a number of experiments, repeated at different times, showed that the vibrations of a large tuning fork have exactly the same

physiological action as magnetic and static electricity. For many years I have learned from patients who were attacked by paralysis agitans, or Parkinson's disease, that they felt much better after long trips by rail or by carriage. During these journeys they get rid of those painful sensations they had at home, and this improvement persisted for some time afterwards. Therefore I have constantly told my students that it was possible that some good could be obtained in Parkinson's disease by movements similar to those of a moving wagon or a train.

With this idea in view Dr. Jegu (Dr. Charcot's Assistant) aided by M. Solignac an engineer, made an arm-chair having a special mechanism which causes it to oscillate rapidly on both its anterior and lateral axes. These combined and varied movements produce a trepidation or trembling that is similar to that felt in a running wagon. Dr. Jegu made a number of trials with his chair, but dying shortly afterwards, Dr. Gilles de la Tourette, a former *chef de clinique* of Dr. Charcot, took up these experiments, and up to the present has tried them in eight cases,—six men and two women. Without making any attempt to analyze the very satisfactory results obtained, we will describe them: An amelioration takes place after the fifth or sixth sitting: The method is mostly of use for the painful sensations in paralysis agitans. As soon as the patient gets off the "trembling arm-chair" he feels lighter and the stiffness is gone. He can walk much better, and he is able to sleep at night. This last is the most important improvement. Except in one case the trembling of the patient was not changed. This improved state is always felt the day of the treatment, so that it should be repeated every day. The results are important in this malady where we have so far, not been able to find anything to give relief.

Dr. Gilles has had an apparatus constructed which is designed to give intense vibrations to the cranium. This apparatus is a sort of helmet with separated blades, that looks like the "conformator" used by hatters to get the shape of the head for hats. By a simple device this helmet fits any head. It has a plate on top on which is placed a small electric motor, moved with an ordinary battery. This motor gives six hundred revolutions per minute, works easily and regularly and produces an uniform vibration which is transmitted to the cranium. The whole head vibrates under it. When the apparatus is in motion you hear a soft humming noise which should be taken into account in studying the results obtained. The number and extent of the vibrations can be regulated. This "vibrating helmet," put on the head of a healthy subject, is well tolerated and does not cause any annoyance. In seven or eight minutes a sensation of numbness is experienced all over the body and the person becomes sleepy. Given for ten minutes at six P. M., a night of calm sleep will follow. Eight or ten sittings cure insomnia when not associated with any organic brain disease. In three cases it was found very efficacious in sick headache (migraine.) Three persons having neurasthenia were treated; two were cured, while the third did not continue the treatment, although improved. This form of vibration acts in neurasthenia by taking away, first, the cephalic symptoms,—vertigo, and the painful frontal constriction which is so characteristic of this affection. What seems to show that these vibrations have a particular action on the brain, is that in one case where the spinal symptoms were predominant, the usual weakness of the inferior members and the sexual impotence disappeared without having to make any vibrations down the spinal column. Static electricity had failed in this patient.

It cannot, therefore, be any longer doubtful that vibrations of this nature are a powerful sedative to the nervous system. No definite data are at present offered as a number of experiments are to be made, but the present statement is made merely to show the possibilities opened up by vibratory medication.

The largest private medical library in the country is said to be that of Dr. Senn. It contains about 20,000 volumes.—*Ex.*

Doctor—Ben, what's your face so bunged up for?

Ben (sadly)—Dat fool George Williams done it; I was at de cake walk las' night, and all I say to his gal was, "good ebnin, Miss Annie, you's lookin' quite pregnant dis ebnin." What make him hit me, doctor?

HYDATIDS OF THE BRAIN.

Dr. Herbert Barclay (*the New Zealand Medical Journal*) in speaking of "Hydatids of the Brain" presents a case with the following history: A young man aged 20, small and stunted in growth, though otherwise active and healthy, "was constantly among sheep and dogs." When seen for the first time, August 7, he complained of a headache; his tongue was slightly furred, pulse about 70, pupils equal and reacted to light. After a few doses of the bromide, and 5 grains of calomel, all symptoms disappeared. On August 13, he was in good health and spirits, but that night he vomited, which he attributed to excessive smoking. On the evening of the 14th, complaining of a severe headache, he passed into a dazed condition and died.

His relatives relate that he sometimes said "his head felt as if too full of blood, and wished that his nose would bleed." Except of the vomiting, already mentioned he did not, at any time, complain. But for a day or two before he died he had noticed a dimness of vision. He had no convulsions. After complaining very much of the headache he became stupid, passed into a state of coma, with stertorous breathing, which gradually deepened till his death.

At the *post mortem* the following conditions were noted: On opening the skull, the dura mater was hyperaemic and the superficial cerebral veins were much distended. On the under surface of the brain was a cystic growth about the size of a pigeon's egg and extending into the brain tissue for at least half an inch. The growth extended from the anterior aspect of the pons varolii to the optic commissure in front. It was composed of one or two cysts, containing clear or brownish fluid; in one part the growth was translucent and in another red and opaque. The anterior part of the swelling contained a few hard particles, apparently chalky concretions. The tumor was quite extra-cerebral, and careful dissection succeeded in turning it completely out of its bed without disturbing the brain tissue. The brain, infundibulum and copora albicanti—the parts pressed on by the upward growth of the cyst—were almost entirely obliterated.

This case is interesting for several reasons. It emphasizes a fact already noted (Graham on "Hydatid Disease") that symptoms, except headache, may be entirely absent. The absence of such symptoms as hemiplegia, vomiting and convulsions were no doubt due to the situation of the growth; and the absence of visual defects was due to the direction in which the growth was expanding. The immediate cause of death was compression of the brain from the stoppage of the circulation, and the giddiness, vomiting and gradual loss of eyesight were no doubt due to the same causes; in fact, the condition simulated apoplexy, and no doubt had the same symptoms occurred in a man of 60 or 70, a death certificate would have been forthcoming.

The impediment to the venous blood flow by pressnre on the sinuses caused the distension of the vessels on the brain surface. The paroxysmal nature of the headache was evidently due to the over-pressure, and as this was relieved by 5 grs. of calomel or by a purge, the rapid cure affected is readily accounted for. The headache would not return till a gradually increasing or varying distension became uncomfortable. The boy himself, before he died, complained of feeling his head too full of blood, and there is little donbt that venesection done early enough would probaly have warded off the fatal issue. Graham says tbat blindness is generally a marked symptom wherever the growth is situated, but in this instance—though attached to the optic tracts—it was never a symptom till the case was becoming fatal, and was due, just as likely, to pressure on and abolition of the function of the occipital lobes as to any local pressure on the commissure or tracts.

The surrounding brain tissue was not found condensed, the usual condition when hydatids attack other organs, though it is occasionally absent. The attempted cure by calcification of the cyst is also interesting, and it seems possible that it might have ended in complete recovery. Dr. Roberts, of Dunedin, the pathological lecturer in the University, examined the growth and considered it an inspissated hydatid tumor.

"This machine only registers 250 pounds, and I weigh in the neighborhood of 300."

"Oh, well, if you want to ascertain your exact weight, drop a nickel in twice, and foot up the aggregate."

THE TREATMENT OF DIABETES MELLITUS BY MEANS OF PANCREATIC JUICE.

In the *British Medical Journal* for January 7th, Dr. Mansell-Jones suggests that as the juice of the thyroid gland appears to be almost a specific in myxœdema, pancreatic juice administered before or after meals should be given a fair trial in diabetes, as this disease, he adds, in most cases, appears to be due to disease or disordered function of the pancreas.

Neither pathology nor physiology, however, lend much encouragement to the hope that diabetes mellitus will prove tractable in such a simple way. In the first place, the pathogensis of this disease is much more complex than that of myxœdema, and diseases of the pancreas account for probably only a fraction of the cases of this malady. In the second place, even if it were a fact, that in most cases diabetes was due to disease or disorder of the pancreas, the analogy of this doubly-active gland both excreting and secreting, with the ductless thyroid gland is not a very close one. There is some reason, however, on theoretical grounds, for the belief that pancreatic juice might have some beneficial effect even in non-pancreatic diabetes.

The recent researches into the pathology of the pancreatic form of diabetes mellitus, of which a most interesting account was given by Dr. Vaughan Harley, (*Br. Med. Jour.* Aug. 27th, 1892,) makes it very probable that, in addition to the well-known tryptic, diostat-splitting and milk-curdling ferments, a glycolytic ferment is also produced by the pancreas. Assuming the existence in the normal pancreas of this latter ferment, I thought it possible that the administration of a pancreatic extract by the mouth might have some beneficial action in diabetes mellitus by assisting to destroy the sugar in the blood. Acting on this idea, therefore, I anticipated Dr. Mansell-Jones's suggestion, and for some time past have been treating in a tentative way two pronounced cases of diabetes mellitus under my care at the Royal Free Hospital, by the administration of a liquor pancreaticus in half-ounce doses given three times a day immediately after food. It is the generally received opinion that when given in this way, the liquor has no appreciable digestive power, so that we may put the latter effect on one side. No other medicine was given after this treatment was started, and in every respect the patients remained under the same condition as before.

In both cases the patients have assured me they have experienced benefit from the treatment. I should not have attached so much importance to their statements had it not been that without any suggestion on my part or collusion on the part of the patients, who attended on different days, there was a remarkable agreement in the accounts they gave of this beneficial effect. They both said they had lost to a great extent their feeling of lassitude and languor, and felt stronger in every way. Their thirst, moreover, had considerably lessened, and they had passed a smaller quantity of urine. These beneficial effects moreover, have continued. The specific gravity of the urine and the relative amount of sugar have, on the other hand, not been affected.

In an in-patient under the care of my colleague, Dr. Samuel West, his house-physician, Dr. Rendel, informs me that since the administration of liquor pancreaticus, the amount of fluid imbibed during the twenty-four hours, which had previously averaged 12 pints, has fallen to 6 pints, with a similar decrease in the amount of urine passed.

In a disease like diabetes we must be thankful for even small mercies. For myself I would rather find an improvement in the general condition of the patient, increased strength, diminished thirst, diminished quantity of urine as a result of treatment than a mere diminution of the amount of sugar in the urine without such improvement. I should have preferred of course, to have found both results. It is evident that liquor pancreaticus is no specific, but the effects in these cases are encouraging enough to induce me to make further trial of it, and it is possible that in cases of true pancreatic diabetes the benefit might be greater.—*Br. Med. Jour.* Jan. 14th, 1893.

Thermometric Observation.

"Mamma," said little Johnny, "if I swallowed a thermometer would I die by degrees."—*Exchange.*

THE LIBRARY TABLE.

Traite de Medecine. Charcot.—Bouchard et Brissand. Tome III. Paris, G. Masson. 1892.

In this, the third volume of the "Traite," the excellent standard set up by the two previous ones is well kept up. The point of view of the modern clinician with his views of bacteriological infection and his antiseptic prophylaxis and therapeusis is every where taken. Even those conservatives who remain true to less radical views will find the acute and dispassionate discussion of such subjects as diphtheria and croup, their relations and differences, an excellent example of scientific presentation of the facts. The author (Ruault) contends for the view, long held in France, of the identity of diphtheria and croup, contrary to the opinions of Virchow, Rokitansky and other German pathologists, who, basing their views upon the pathological anatomy of the two affections, regarded the one as infectious disease of a gangrenous nature and the other as a simply inflammatory condition.

As to treatment M. Ruault believes in local therapeutics, and seems to think it necessary to fight valiantly for this almost unanimously held opinion. In speaking of the prophylaxis, a matter of special interest to us at this moment in view of this winter's epidemic, no suggestion is made of any such ridiculous plan as the absurd house quarantine of our ingenious Board of Health. Directions for the protection by a special covering, such as some sort of smock frock, of the clothes of these in contact with patient, for the disinfection of all articles in use by boiling water or great heat, and for the cleansing of the hands by a solution of carbolic acid, which Chautemesse and Widal had found the most effective against the baccillus of Klebs. As an alternative to carbolic acid he recommends the acid sulphoricinate of soda, a substance of which little is known in this country.

No word is said of the present favorite peroxide of hydrogen, although in all other respects the article is well up to its date of March, 1892. This practice of dating articles pursued throughout the work is, by the way, one much to be commended.

Other subjects treated, and mostly well treated in this volume, are diseases of the stomach, pancreas, intestines, liver and peritoneum. The latter seems to us the least adequate, especially in its too scant mention of the surgical handling of appendicitis.

Clinique des Maladies du Systeme Nerveux. M. le Professeur Charcot. Paris, 1892. Tome I.

This volume contains a collection of the lectures of Prof. Charcot, and of papers published from his service during the years 1889–91, by his various chiefs of clinic and hospital internes.

They are mostly on the more recently described or differentiated forms of nervous diseases, but are rather suggestive, as clinical lectures should be, than exhaustive. It is a pity that the desire of print should have become so strong as to cause the publication of papers so little complete as some of these. In the place of the careful, accurate and thoughtful work which Charcot's name would once have guaranteed, we have a series of superficial studies of small importance. The most interesting we have found are those on hystero-traumatism, on hysterical œdema, on ophthalmoplegic migraine and the remarks in the lesson on a case of male hysteria upon the frequency of occurrence of hysterical troubles in that sex, a frequency much greater in Europe than in this country. Charcot thinks hysteria major, "la grande hysterie," perhaps even more common among men in the lower classes than among women, though slight hysterical manifestations affect women more than men. The case reported had complete lateral facial anæsthesia with paralysis of the buccinator and greater zygomatics muscles only; he had hysterical convulsions with opisthotonos, a hysterogenetic area in the left hypochondrium and symmetrical narrowing of the visual fields—certainly a sufficiently curious case.

CURRENT LITERATURE REVIEWED.

INTERNATIONAL MEDICAL MAGAZINE.

The January issue of the *International Medical Magazine* offers eight papers as "Original Communications." Five of these were read before the American Climatological Association last June.

Drs. Curtin and Watson, in an article entitled

The action of Influenza Poison on the Heart, and a Study of Influenzal Angina Pectoris,

consider that all treatment lies in finding out the cause of the peculiar condition of the heart during and following influenza, and as as a basis for this inquiry the condition of the heart itself. That the heart condition is evidently not due to anæmia and a consequent weakened condition of the heart wall, is shown by the rapid onset of symptoms and their frequent rapid subsidence. It is not inflammatory, for inflammations of the endocardium are exceeding rare, and all endocardial trouble was not prone, during the epidemic, to be aggravated or lighted up afresh, and subnormal temperature generally existed. Even articular rheumatism associated with influenza had little tendency to exo- or endo-cardial mischief. In some protracted

cases the long-delayed fatal event may have been due to nutritional changes in the heart muscle, consequent to continued faulty innervation.

Under treatment arsenic is recommended as valuable in anæmic cases, and one-drop doses of Fowler's solution before feeding seemed to increase retentive and digestive power. Bromide of ammonium quieted restlessness; sulphonal generally had a good effect, was occasionally dreaded by the patient, but generally was the most satisfactory hypnotic, often combined with bromides. Paraldehyde, when well borne, was useful.

The prognosis was hopeful in almost every case no matter how desperate it seemed, except in the aged with organic heart disease, cardiac degeneration and senile weakness. Recovery was the invariable rule in the young and robust.

Treatment ot the anginal cases differed but little from that employed for weak hearts from other causes. Excessive and over-stimulation of the nerves was to be ever guarded against, for it sometimes aggravated the symptoms. The quieting effect of rest in bed, with the attending protection from cold, fatigue and draughts, was of the greatest importance in treating the anginose cases.

"A case of extreme prostration following an attack of influenza; repeated threatened heart-failure; peculiar cardiac irregularity; Recovery" is presented by Dr. Platt.

Dr. Robinson's paper

The value of Conservatism in the treatment of some common Nasal and Throat Diseases especially among Children

is a plea to the general practitioner to refer to the specialist those cases of nasal and throat diseases that are so little understood by the average practitioner. He takes, as an example, a small child from infancy up to four or five years of age, who has the "snuffles" with decidedly obstructed breathing. He says "the family physician contents himself with prescribing some aconite or nitre or perhaps a hot foot-bath," whilst the specialist under these conditions, uses one or more applications, at suitable intervals, of glacial acetic acid, or of mono-chloracetic acid, by means of a flattened probe wrapped with cotton, which will relieve the child's breathing sufficiently to render further or different interference quite unnecessary. The doctor takes for granted that the general practitioner's knowledge in these cases, is limited to the use of internal medication alone.

Dr. Quimby has quite a lengthy paper on "The Pneumatic Cabinet in the Treatment of Pulmonary Phthisis."

Prof. Charcot has a paper on "Vibratory Medication; the Application of Rapid and Continuous Vibrations to the Treatment Diseases of some of the Nervous System," fuller mention of which is made elsewhere.

THE NEW ZEALAND MEDICAL JOURNAL.

The quarterly issue for October comes to us with twelve carefully prepared articles. We notice elsewhere the paper of Dr. Barclay, "Hydatids of the Brain."

Dr. Barnett reports a case of "Malignant Endocarditis."

Dr. De Lantour has a

Case of Twins—Locked Heads

to offer. The patient was a primipara, aged 22. After the diagnosis was made and verified by Dr. Wait, who did the operating, the first child was decapitated and the body delivered. As the "patient seemed to be suffering from shock and getting weak," a craniotomy was performed on the second child and it was quickly delivered. Then came the difficulty of extracting the loose head which had been pushed back to permit the other head to come down. After some difficulty it was secured by a crotchet and delivered. The patient made an excellent recovery without a bad symptom, and has had two ordinary pregnancies since.

The writer has a second paper in this number, of interest from the fact of its infrequency.

A Case of Complete Spontaneous Inversion of the Uterus

following birth. The doctor was in the act of delivering the placenta, his left hand firmly over the uterus, holding the umbilical cord loosely in his right hand, and feeling the uterus contracting, said, "Bear down, and give a little cough" She did bear down and gave a tremendous cough. The abdominal tumor disappeared and a large mass shot out on to the bed extending down almost to the knees. This on close inspection proved to be not only the placenta, but the uterus, fallopian tubes and ligaments. The placenta was quickly peeled off, the fundus and body of the uterus was bathed with a warm bichloride of mercury solution—1 to 1000. Treating it like a hernia, gradually applying pressure and reduction, the whole mass returned. There was no hemorrhage or shock; gave brandy, ergotinine and opium; kept her in bed for four weeks. Attended same patient in second pregnancy which was quite natural; she recovered without a bad symptom, and got up on the fourteenth day.

Dr. Thomas has a paper on

Constipation

which he considers under the two heads of *local* and *general* causes. The *local* causes comprise all those conditions which so act, from without or within the large bowel and rectum, as to impede the onward movement of feces through these parts, either by narrowing some portion of the canal or by interfering with its functions, e. g., the pressure and irritation of scybala; putrefactive gas, worms, concretions and tumors of various kinds, a weakened condition of the expiratory abdominal muscles as seen in repeated pregnancies, and especially after twins, obesity, inflammation, lead-poisoning and painful affections of abdominal walls, diaphragm or pelvic viscera. The *general* causes are referred to under the heads of *temperament*, *habits* and *errors in diet* and *dress*.

Dr. Irving presents an article on "Postpartum Hemorrhage."

NEW YORK JOURNAL OF GYNECOLOGY AND OBSTETRICS.

The January number of this journal contains five papers, two of these—Dr. Potter's "Specialism in Medicine, particularly as related to Surgery and Gynecology," and Dr, Kollock's "Craniotomy on the Living Fœtus is not Justifiable" appeared in THE MEDICAL AND SURGICAL REPORTER Dec. 3, 1892, as part of the transactions of the Southern Surgical and Gynecological Association. Dr. Ingraham reports three cases of "Ectopic Pregnancy" with the usual history of such cases. "The Prevention of Hernia after Incision of the Abdominal Walls," is the subject of a paper by Dr. Edebohls.

THE OPHTHALMIC REVIEW

For November contains an original paper by Archibald S. Percival on "The relation of Convergence to Accommodation and its Practical Bearing." Amongst the reviews is one of especial interest:—Galezowski on

Changes in the Ciliary Circle and the Examination of this region in Constitutional Affections and in Myopia.

The Ciliary Circle, which consists of the anterior portion of the retina, the ora serrata and the ciliary body, is a region of the eye which has not, in the author's opinion, received sufficient attention from ophthalmoscopic observers. This neglect has arisen from the difficulty of getting a proper view of the region. For the purpose of making the examination of the ciliary circle as easy and complete as possible, Dr. Galezowski has had a lens of short focus joined to a very strong prism, which combination he uses, presumably, with the ophthalmoscope. He states that the association of opacity of the anterior part of the vitreous with changes in the ciliary circle is so constant, that in making statistics of the former, the author found ophthalmoscopic evidence of changes in the ciliary region in 98 per cent. In choroiditis of syphilitic origin there is a constant presence of atrophic patches at different points of the ora serrata. Tnberculous lesions of the ciliary circle are recognized as small grey-white elevations, with surrounding serous infiltrations and with pigmentary deposits here and there. Gouty effusions are seen in the form of sanguineous effusions into the choroid or vitreous.

THE BRISTOL MEDICO-CHIRURGICAL JOURNAL.

For December contains four articles. Dr. Skerritt, the President of the Bristol Society chose as the subject for his annual address,

The Teachings of Failure.

In looking back upon the medical history of the past, two episodes stand out in bold relief before him—one, the history of tuberculin; the other, the onslaught of influenza. The former is a thing of the past; the latter he trusts, is so too, and upon neither can we, as a scientific, profession, look with satisfaction. Koch led us away after a will-o'-the wisp; the Influenza did with us what it would; and the contemplation of this has turned our thoughts towards an aspect of work upon which it is good for our mental discipline that we should at times meditate.

Drs. Davy and Blonfield present "Two Cases of Locomotor Ataxy with Charcot's Joint disease." They point out in presenting these cases what M. Charcot has long ago called attention to, that the arthropathy is an *early symptom* in locomotor ataxy, and that the absence of pain and inflammation is a most important point in the diagnosis of all diseases of the joint caused by locomotor ataxy.

"Health Resorts in the West of England and South Wales" are presented by Dr. Brabazon. Dr. Prichard has quite a lengthy address on "The early history of the Bristol Medical School," which was delivered at the formal opening of a new wing of the University College.

HARPER'S MAGAZINE.

The first article in the February *Harper's* is an exposition of Shakespere's "Twelfth Night." The illustrations by Edwin Abbey are seconded with "comment" by Andrew Lang. The pictures are inimitable. The poet Whittier is written of, and his haunts are beautifully illustrated. Julian Ralph writes critically and entertainingly of New Orleans, which he calls "Our Southern Capital." His eyes see much that is new, and Smedly, the artist, helps the reader to understand Mr. Ralph's descriptions. The most interesting thing in this magazine is the powerful and absorbingly interestlng serial, "The Refugees." Several short sketches, the usual poetical efforts and the editorial departments make up the balance of the magazine. It is a good number.

THE MEDICAL CHRONICLE

of Manchester, England, for January contains a paper by Dr. Thomas Barlow on the

Prognosis of Chronic Alcoholism in the Light of its Pathology.

The author compares the effect of alcohol taken continuously in the system to that produced by other poisons, such as lead, mercury, arsenic, etc. The treatment advocated is the absolute withdrawal of the poison and the substitution of good food. The idea that delirium tremens will follow the cessation of the daily dose of alcohol is discussed, the author's opinion being that it does not ensue. The outlines of chronic alcoholism are well presented.

Dr. E. Stanhope Bishop contributes a paper on

Faradism in Cases of Slight Prolapsus and Retroflexio Uteri.

After reviewing the advantages of and objections to Alexander's operation for the relief of this condition, the author reports a number of cases in which he used faradism with good results. One electrode was placed in the vagina, pressing against the os uteri, whilst the other was applied for a third of

the seance to each great sacro-sciatic notch and the back immediately above each posterior superior iliac spine; then for one-third each to the inguinal canals and external abdominal rings. He has treated thirty-two cases in this way. Twenty-five of these have been satisfactory; five have failed; two are still under treatment.

The other papers in this number are: "Observations on General Pathology of Cancer—Particularly Cancer of the Breast," by Dr. W. Roger Williams. The report of a case of "Silent Pneumonia," where there were neither breath sounds not adventitious sounds over the lower lobe of left lung, by Dr. Graham Steele. Dr. D. Lloyd Roberts reports "Cases of Ovarian Cystic Tumor," and Dr. T. N. Kelynack a case of "Acute Perforative Appendicitis."

KANSAS MEDICAL JOURNAL.

"Belladonna, with some of its Therapeusis," is the title of a paper by Dr. J. E. Minney. The various indications for the internal use of Belladonna, as well as its use in eye surgery, are discussed. The paper contains nothing new.

Dr. H. L. McIlhenny contributes an article on

Pelvic Presentations and their Management.

While the article is but a reiteration of the well known rules governing these cases it is well worth reading, as the author speaks from his own experience which has been a rich one. He thinks that the troublesome condition where the arms go up over the head in the pelvis is not of necessity caused by traction on the body, as he states that it has occurred where no traction has been made. Forceps, he thinks, should not be applied to the after-coming head unless there is a disproportion between the head and the pelvis.

The other articles are "Chronic Tubular Nephritis" by Dr. R. E. McVey, and the report of a case of "Laryngitis," where tracheotomy became necessaay owing to œdema of the larynx, by Dr. S. C. Pigman.

THE ANNALS OF GYNECOLOGY AND PÆDIATRY

for January contains, besides the proceedings of the Obstetrical Society of Philadelphia, which have already been given in the columns of this journal, the

"Report of a case of Gastrotomy or Laparotomy,"

by Dr. R. E. Haughton. The birth of the patient's second child was followed by acute terminating in chronic suppurative peritonitis. At the operation a large suppurating cavity was found between the peritoneum and the abdominal walls which was incised and drained. The peritoneal cavity was not opened. Later, a fæcal fistula developed, communicating with the abscess cavity. This healed spontaneously.

Under Society Proceedings there is a paper by Dr. W. W. Potter on "Posture in Relation to Obstetrics and Gynecology," with photographs of models taken in the various postures—horizontal, genu-pectoral, Trendelenberg, etc. That any journal, even that of a specialty, would admit this paper suggests either a lack of self-respect, a poverty of resource, or a veiled advertising arrangement. The aggregation of words affords an inefficient setting for the obscene photographs displayed, and the excuse offered for the exhibition of nudity is an insult to the intelligence of the profession.

PERISCOPE.

MEDICINE.

Dr. J. T. Carpenter, Jr., (*Philada. Polyclinic*) calling attention to severe burns of the conjunctiva by the instillation of calomel while giving potassium iodide internally, in course of his remarks states that the cases that came under his notice showed that although no permanent damage was done, the inflammatory reaction was severe and caused a muco-purulent conjunctivitis, accompanied by chemosis and œdema of the lids with great suffering.

The iodide is excreted by means of the tears and when calomel is instilled into the conjunctival sac, biniodide of mercury is formed which is a severe caustic. It is in a large clinical service that this mistake is most likely to occur, where, owing to the number of cases and the short time in which to treat them, inquiries as to what medicine is being taken are apt to be neglected, but it may occur in one's private practice. Certain it is, that the caution is a practical one; *do not use calomel where iodine or iodides are being administered.*

SURGERY.

Relation of Albuminuria to Surgical Operations.

In a paper upon this important theme, read before the Southern Surgical and Gynecological Association (*Virginia Medical Monthly*, December, 1891), Dr. Long arrived at the following conclusions:

1. Ether or chloroform rarely injures healthy kidneys.

2. When renal disturbances occur from the use of an anæsthetic, the kidneys being healthy, they are due rather to prolonged narcosis, exposure of the patient, or perhaps to the combined influence of the operation and the anæsthetic.

3. A mild degree of albuminuria (or nephritis), especially if recent, is not a contraindication of the use of chloroform.

4. Even in the presence of advanced and extensive renal changes, an anæsthetic may be employed, provided the patient or the family be advised of the additional risk.

5. Of the two anæsthetics usually employed

it is yet a mooted question as to which is the safer, so far as the kidneys are concerned, unless it be in obstetrical operations.

6. While it is by no means the rule, profound functional disturbance, and even organic lesions may be induced by an operation, apart from the influence of the anæsthetic.

7. Such renal changes are due to reflex sympathetic action, or to sepsis, or both.

8. Operations in certain regions—notably, the abdominal genito-urinary, anal, or rectal, are especially liable to produce renal complications.

9. A healthy condition of the kidney *minimizes*, but does not obviate the danger referred to.

10. Albuminuria is always an indication of renal lesions, and should be regarded with distrust, but is not a positive contraindication to an operation.

11. When albuminuria is associated with other evidences of advanced renal changes, no operation should be undertaken without candidly stating to the patient or friends the dangers incident to the condition of the kidneys.

12. Paradoxical as it may seem, an operation will sometimes relieve an albuminuria due to acute affections.

13. No surgeon is justified in undertaking an operation without first knowing the state of the patient's kidneys.

Phimosis and Circumcision.

My observation, experience and mature deliberation have led me to conclude in this matter:

1. That each male child should be examined at birth for obstructive phimosis when we examine for imperforate anus.

2. That the prepuce should be retracted fully, and all adhesions to the glans broken up, all smegma be removed, and the nurse be instructed to retract, wash and anoint the parts daily for two weeks and once each week thereafter.

3. That a long and redundant foreskin, though freely retractable, may be a cause for local and reflex diseases, may occasion, or at least exaggerate, an undue sexual appetite, and so predispose to masturbation, sexual excesses, and ultimately to venereal diseases.

4. That such cases should be circumcised, as should the cases where the foreskin is not retractable.

5. That routine circumcision of all male infants is to be condemned. That the prepuce plays an important part in the human economy, and should not be amputated except for good and sufficient reasons.

6. The unhappy experience of the fatal case cited, demonstrates that this little operation may be attended by grave dangers, and should be undertaken with this risk in view, and only after we are assured that the parents' families are not bleeders.

7. That infants may endure a copious hemorrhage far better than we have heretofore supposed.—*Dr. Wetherill, Univ. Med. Mag.*

Laryngeal Intubation.

Max Scheier gives (*Arch. de Laryng.*, etc., November-December, 1892) the experience of intubation in the Urban Municipal Hospital in Berlin, during what is described as an exceptionally severe epidemic of diphtheria. The operation was performed in 16 cases of acute diphtheria with three recoveries. Of the 13 who died all were submitted, subsequently to the intubation, to tracheotomy, with the exception of one, a child, aged 4, in whom the tube was retained for two days and a half, death being due to cardiac paralysis. The results of subsequent tracheotomy were thus very unfortunate; only one, a case enumerated among the recoveries after intubation survived. Before introducing the tube, the mouth, the tonsils, and the uvula were swabbed with an antiseptic solution, and all membrane thus loosened removed. The solution used for this purpose was either a 1 per mille solution of thymol, or the following: Salicylic acid 3 parts, boric acid 30 parts, distilled water 1,000 parts. Among the causes of failure of the operation Scheier enumerates swelling of the epiglottis and ary-epiglottic folds, and he reccommends that a laryngoscopic examination should, if possible, be made before attempting to introduce the tube. Another cause of immediate failure is pushing membrane in front of the tube into the trachea; in some of the cases of apparent failure the tube when removed brings away false membrane or a plug of mucous, and breathing is then improved. A nurse must be kept in constant charge of the case after intubation with instructions to remove the tube by pulling on the string if the dyspnœa become severe; this withdrawal is in most cases immediately followed by some relief to the dyspnœa, which may endure for several hours. Expulsion of the tube by cough was observed only in cases in which the intubation was done for acute diphtheria, and was due to the tube becoming plugged with mucous. Scheier does not think that the accident was due to the use of too small a size. He is inclined to think that the difficulty in deglutition has been, at least, exaggerated. As a rule, he found there was none after the first two or three attempts; when more persistent he believes it to be due to the inflammation itself and not to the tube. In the treatment of stenosis after tracheotomy intubation was very successful, whether this stenosis was due to a spur or to the formation of granulations. Such granulations may have formed at the upper or lower border of the tracheal wound by the time it is proposed to withdraw the tracheotomy tube, or they may develop much later at the site of the tracheal wound. Scheier believes that intubation will also be valuable in diphtheria of the wound and skin after tracheotomy; it was also instrumental in saving life in a case of severe secondary hemorrhage after tracheotomy. His conclusion is that intubation will prove to be a valuable auxiliary in the treatment of laryngeal stenosis due to diphtheria, but that its most important field will be in the treatment of chronic stenosis of the larynx.—*Ex.*

The Use of Cocaine.

1. Amount of cocaine used must be in proportion to extent of surface it is desired to anæsthetize. In no case should the quantity exceed one grain and three-quarters.

2. Cocaine should never be used in cases of heart disease, pulmonary disease, or in persons of highly nervous temperament.

3. In injecting cocaine, the intradermic method is preferable to hypodermic. By injecting into, not under mucous membrane or skin, the risk of entering a blood vessel is avoided.

4. During injection patient should always be in recumbent position; in operations upon the nose and throat the head should not be raised until anæsthesia is complete.

5. It is of great importance that cocaine should be pure, since its combinations with certain other alkalies result in poisonous compounds.—*Brooklyn Medical Journal.*

Deaths Under Chloroform.

The stream of deaths from chloroform during inhalation still flows on in undiminished volume, and while much is said and written about the methods of restoring collapsed patients. there is little about how to prevent collapse. It has not yet come home to doctors generally that the want of oxygen is the direct cause of the collapse, but we notice a practical suggestion of Dr. G. H. Nicholson, of Liverpool, which may lead to some good. He advises a combination of oxygen with the chloroform-vapour, and says that this keeps up the blood-pressure and maintains respiration in a way that gives confidence to the operator. This is well worth trying.—*The Chem. and Druggist.*

OBSTETRICS.

Spontaneous Cure of Rupture of the Uterus.

Richter (*Deut. Med. Woch.*, November 1892) was called to a case in which during labor the pains had ceased, the presenting part had retreated, and the patient had suddenly become faint and had vomited. Abdominal palpation discovered a foot apparently immediately beneath the abdominal wall. The author then seized the other foot, turned, and delivered, there being much difficulty in getting the head through the contracted pelvis. The child was born in a condition of asphyxia; it was "Schultze'd" for some time, but without result. The placenta had to be removed manually, when a rent was found to the front and left of the uterus, through which three fingers could be passed immediately beneath the abdominal wall. No douching was practised. A sandbag weighing two pounds was placed on the abdomen, and several doses of ergot given. The patient recovered. In all the manipulations every antiseptic precaution was taken. The case shows that even rupture of the uterus may heal spontaneously if septic infection be avoided. The slightness of the bleeding from the rent was due, in the author's opinion, to the infant's leg acting as a tampon.—*Brit. Med. Jour.*

Treatment of Post-Partum Hemorrhage.

Tarnier (*Journ. des Sages Femmes*, December 16th, 1892) strongly insists on the recognized modern treatment, namely, clearing out clots by the introduction of the hand into the uterine cavity, followed by hot water injections. At the same time he advises that a small dose of alcohol be given. Should these means fail, ergot must be administered; 7 or 8 minims of the aqueous solution of ergotinine, hypodermically, act best. If the flooding still goes on he advises, before resorting to the extremity of plugging the uterus, that an intrauterine injection of the following solution be given pure:—Tincture of iodine 30 parts, iodide of potassium 10 parts, distilled water 60 parts.

GYNECOLOGY.

Vulvitis with "Gonorrhœal Rheumatism" in a Child aged 2.

Lop (*Gaz. des Hop.*, No. 42, 1892) relates a case of mono-articular arthritis following vulvitis in a girl aged 2. It demonstrated the close relations between vulvitis in virgins and true gonorrhœa. The child was admitted into hospital on January 5th, 1892. She had suffered from discharge for a fortnight; it was free, tenacious, and greenish yellow; the vulva was acutely inflamed. On the ninth day after the commencement of the discharge a painful swelling appeared in the right radio-carpal joint. On admission the wrist was red, tender, and much swollen. There was absence of fever, urethritis, albuminuria, and cardiac or pulmonary complication. It appeared that there was no reason to suspect venereal taint of any kind. The discharge was carefully examined, and gonococci discovered. Sublimate lotions, and painting of the parts with a 5 per cent. solution of nitrate of silver soon cured the local discharge. After fifteen days of antiseptic treatment no more gonococci could be found. At the same time the articular complication subsided. Opinion is still divided, but many authorities deny that the gonococcus is a specific germ, and declare that they have detected it in the vulvitis of virgins.—*Ex.*

ARMY AND NAVY.

FROM JANUARY 22, 1893, TO JANUARY 28, 1893.

Captain Louis W. Crampton, Assistant Surgeon, U. S. Army, now on leave of absence at Los Angeles, California, will report in person to the Commanding General, Department of Arizona, for such temporary duty at Los Angeles, California, as may be required.

Leave of absence for four (4) months, on Surgeon's certificate of disability, is granted Captain Freeman V. Walker, Assistant Surgeon, U. S. Army, on condition that he spend the period of leave as a patient in the Army and Navy General Hospital, Hot Springs, Arkansas.

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ORIGINAL ARTICLES.

SAMUEL MARDIS HOGAN, M. D., Union Springs, Ala.
The Early Treatment of Congenital Club-Foot . . 197

JOHN EDWARD PURDON, A. B., M. D., Tampa, Florida.
The Physical Import of Variable Achromatopsia; an Original Research. 200

CLINICAL LECTURES.

JOHN V. SHOEMAKER, A. M., M. D.
A Case of Papulo-Squamous Syphiloderm. . . . 205

COMMUNICATIONS.

WILLIAM C. KRAUSE, M. D., Buffalo, N. Y.
Reflex Disturbances in the Causation of Epilepsy. . 208

ROBERT C. MOON, M. D., Philadelphia, Pa.
A Portable Combined Optometer and Opthalmoscope (Opthalmometroscope.) 212

ANDREW F. CURRIER, M. D., New York City.
Certain Forms of Septicemia Resulting from Abortion. 214

SOCIETY REPORTS.
The Surgical Society of Louisville 216

CORRESPONDENCE.
New York Letter. 222
New York State Medical Society. 223

EDITORIAL
The Examination of Sputum for Tubercle Bacilli. . 224

TRANSLATIONS 226

ABSTRACTS 230

THE LIBRARY TABLE. 232

CURRENT LITERATURE 233

PERISCOPE

NEWS AND MISCELLANY 236

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ORIGINAL ARTICLES.

THE EARLY TREATMENT OF CONGENITAL CLUB-FOOT.

SAMUEL MARDIS HOGAN, M. D., Union Springs, Ala.

In presenting this subject I do so, not for the purpose of advancing any new theory as to the causes of these deformities, nor for the purpose of introducing any new or original line of treatment, but to endeavor to awaken an interest in these unfortunate cases which will result in their obtaining earlier treatment and more speedy and permanent cure.

In order that we may fully appreciate the importance of this early treatment we should remember that immediately after birth not only the ligaments and tendons are soft and easily stretched, but even the tarsal bones are undeveloped and can be moulded into proper shape. At this age, too, the growth is rapid and will aid very materially in overcoming these deformities after we have adopted a course of treatment suitable to the case. If, however, we neglect the treatment of these cases, which is so frequently done, there will be defective nutrition of the parts and a changing of the bony structures that may defy all of our resources to rectify. This being the case, it is certainly the duty of the attending physician to institute this treatment immediately after birth, as every day that it is postponed will be valuable time lost, for the effects of the pressure on the nutrition of the parts will be rapidly manifested. Structural changes will soon take place, which will complicate the treatment very materially and may even require an operation with the knife. It is true that a tenotomy may be required even after the best directed efforts, but it will be an exception and an exceedingly rare one. In making this statement, I know there are many eminent surgeons who contend that every case should be cut, and notably among these is Dr. W. E. Balkwell, of London, who, in an article on this subject, read before the 9th International Medical Congress, says:—"The child is brought to you at from two to three weeks old, and you have to decide when to operate, for operate you must; no extension apparatus is of any permanent good."

Edmund Owens, M. B., F. R. S., who also is a surgeon in this same home of the specialist, takes an entirely different view, and says in his book on the "Surgical Diseases of Childhood:"

"The plaster-of-Paris method enables us to treat the club-foot of a tender infant with security and success and without the expense of a mechanical apparatus requiring daily attention.

Thus, children may be dealt with in the out-patients' department of a hospital or in the out-lying districts of a country practice, with as much convenience and certainty as if they were inmates of a hospital."

In our own country the majority of our most successful orthopedic surgeons hold that a tenotomy should not be performed until it was absolutely necessary. This question will be discussed further on.

The question now arises, how should we proceed with the treatment, and in the event of failure, when should we resort to tenotomy?

All infants should be carefully examined immediately after birth, and if a club-

foot be found the nurse should be shown and fully instructed *how* to manage the case for several weeks. Three or four times a day the foot and leg should be gently but thoroughly rubbed and kneaded and the foot and heel straightened. This should be done systematically for three or four weeks, when it will generally be found that the foot can be placed in a correct position with very little force and without interfering very materially with the circulation. Then a plaster-of-Paris dressing can be applied and allowed to remain ten days or two weeks, when it should be removed, the foot and leg bathed in warm water, well rubbed and kneaded and the dressing again applied. This may be repeated for several months, or until the contractions have been entirely overcome; or it may be advisable, after a few dressings, to split the plaster-of-Paris dressing in front and have the foot taken out every day or every four days, and after being attended to it can be replaced and easily secured with a roller bandage. This dressing can also be easily arranged so as to use the artificial rubber muscles of Dr. Sayre, if it should be thought advisable to do so. At no time, however, should the plaster-of-Paris dressing be applied so as to affect injuriously the circulation or produce discomfort or pain, and we can generally avoid this by first applying a soft, thick sock, or a roller bandage of some soft, thick material, leaving the toes exposed, as suggested by Dr. Owens, and then applying the plaster bandage which should be done quickly and smoothly, the foot being held in the straight position until the plaster has firmly set.

The time may come, however, when after carrying out this line of treatment, even faithfully and intelligently, the deformity has not been relieved, and we will then have to decide whether to operate or not. To decide this question, Dr. Sayre says:

"Distortions or deformities which are the result of contractured tissue, can only be removed by forcible rupture of the same, or by cutting before traction is applied.

A *contracted* tissue is one simply shortened but which can be elongated by careful, continuous and judiciously applied traction and manipulation, and therefore does not require to be divided. A *contractured* tissue is one which has undergone some changes of structure in the fibrillæ of the muscles, and which cannot be elongated or stretched unless the tissues are severed or torn, and therefore sections in such cases are absolutely necessary. Mr. Little, of London, describes this condition as one of structural shortening. In order to determine which kind of tissue we have to deal with he lays down the following rule:

If in any case of club-foot or other deformity we stretch the shortened parts to their utmost tension by manual force or mechanical aid, and when the parts are thus stretched we suddenly add to the tension by pressing with the thumb or finger on the part thus stretched, or by pinching the stretched tissue between the thumb and finger, and if, by either of these acts, we produce a reflex spasm or sudden shivering of the whole body, the muscle, tendon, or tissue thus yielding, the *reflex spasm is contractured*, and cannot be elongated without the severing of its fibres."

This teaching of Dr. Sayre has not been fully adopted by the profession, but I know of no one who denies its correctness and, as a rule, his opinion on this subject is entitled to the fullest consideration.

Dr. Edmund Owens says: "If, after some weeks of simple plaster-of-Paris treatment, the position of the foot, though improved, be not entirely corrected, if there remain considerable inversion of the sole and some drawing up of the imperfectly developed os calcis, a tendon must be divided."

There are yet some other conditions that must be eliminated before we proceed to cut. If there is any irritation of the clitoris it must be relieved by local application or excision, or if there be phimosis circumcision should be performed, as the fact has been fully settled that it is almost, if not entirely, impossible to cure a case of club-foot with either of these conditions existing.

About two years ago I had a patient with congenital talipes equino-varus of the right foot, in which I commenced this treatment immediately after birth. The mother and child left as soon after her confinement as she was able to travel, and I saw no more of the case until he was about four months old, when she returned with him for further treatment, as improvement seemed to be very slight.

Upon examination I found both feet and legs to be of nearly the same size, and

very well developed. If he was the least excited it was almost impossible to straighten the foot, but whenever I could attract his attention, and get him in a playful mood, it would take very little force to overcome the deformity. This satisfied me fully that there was some irritation somewhere that was keeping up, or at least intensifying these contractions and, as Dr. Sayre and other surgeons had frequently reported such cases, I naturally examined the penis for the cause and found a phimosis and an adherent prepuce. I did a circumcision and liberated the adhesion after which improvement was rapid and his recovery seems to be perfect. In this case I should have most certainly operated had I overlooked this source of irritation.

When we have fully decided that an operation should be done we must then decide where it should be done, and at this point Dr. Sayre lays down this rule:

"While the patient is anæsthetized put the parts under consideration upon the stretch to their fullest extent, and while thus stretched press with the thumb or finger upon the tendon or fascia thus stretched, and if this additional pressure produces reflex contraction, that tendon or fascia must be divided, and the point of pressure producing spasms, is the point for operation."

In performing a tenotomy it is important to have a blunt-pointed tenotome, so as to avoid injuring important blood-vessels and nerves; still we can use a sharp-pointed one to puncture the skin and the sheath of the tendon if it should be preferred. The knife is introduced flatwise until it enters the sheath of the tendon, when it is passed under the edge, turned upwards against it and the tendon severed by being pressed upon it; the knife is again turned flatwise and removed, pressure being made with the finger along the track to avoid the entrance of air, and the wound is hermetically sealed with rubber plaster. All of the tendons and fasciæ are cut necessary to enable you to put the foot in proper position. This should be done immediately, and the dressing applied so as to retain in position until the wounds have healed, and the bloody serum or lymph that has exuded between the cut ends of the tendon becomes organized, which will usually take place in about two weeks.

For this dressing I still prefer the plaster-of-Paris, although there are many surgeons who prefer others, and each of them can be applied with more or less success. Those dressings, however, that are made with adhesive plaster should usually be avoided, as they are so liable to irritate the tender skin of the infant.

The usual point for cutting the tendo Achillis is just above its insertion into the os calcis, and as the knife is introduced into the sheath and just below the tendon, there will be no danger of cutting any important blood vessels or nerves. The tendons of the posterior tibial muscle, and the flexor longus digitorum may be cut, most conveniently, just above the internal malleolus, the patient lying on his side. The operation is done on the same principles as in dividing the tendo Achillis, and the only precaution necessary is to avoid cutting the posterior tibial artery and nerve, which might be endangered by carrying the knife too deeply. Or the tendon may be cut below the ankle in its passage to the scaphoid bone. The tendon of the tibialis anticus will be found in front of the ankle where it may be felt as a tense cord, lying somewhat nearer the internal malleolus than in its natural position, and where it can be very easily cut without danger, as the anterior tibial artery lies external to it.

The plantar fascia is to be divided in the same manner as we divide tendons,—by passing the knife under and cutting outwards, and it may be necessary to divide it in the posterior portion and opposite the metatarsal bone of the great toe. Other tendons and fascia may be so contracted as to need division. When they are put upon the stretch they are generally readily detected, and can then be divided.

After division of all tendons, fascia, etc., that may be needed to straighten the foot; after healing of all wounds, and after the divided tendons have been reunited, it will still be necessary to keep the foot in a proper position by means of the plaster-of-Paris dressing, or some of the many other forms of braces, splints or shoes that have been devised for such cases. In no instance should we relax our efforts to develop the muscles by daily friction, massage, electricity, etc., until the deformity has been permanently removed and our little patient is able to walk perfectly with an ordinary shoe.

I have purposely avoided going into a detailed account of the various appliances for such cases because I believe, if the treatment is commenced immediately after birth and faithfully carried out, you can accomplish with the plaster-of-Paris dressing, and artificial rubber muscles when necessary, everything that could be done with the most expensive orthopedic appliances, and with much less trouble.

THE PHYSICAL IMPORT OF VARIABLE ACHROMATOPSIA; AN ORIGINAL RESEARCH.

JOHN EDWARD PURDON, A. B., M. D., Tampa, Florida.*

The title of my paper is rather a formidable one, but shorn of technical language, it is a condensed expression for the implication that there exist certain cases of functional nervous disturbance in which variability of the color sensibility is a prominent feature, and that such variation is accompanied by changed mental and physical conditions.

Color blindness proper, a congenital affection, does not directly enter into the consideration of this class of derangements since the color vision in all my cases was at times perfect. Indeed the sharpness of this function was the inlet by which alone I could test the nature of the changes that occurred from time to time in the persons under observation.

The name of Mr. William Crookes, F. R. S., the celebrated chemist, is well known and his experiments in the line of psychical and spiritualistic research are some of the most accurate on record. The persons named in this paper as furnishing valuable physiological data were some of those with whom he made his most widely published and most startling observations. I have in my possession a photograph, prepared by Mr. Crookes himself, in which he appears with a duplicate of one of the sisters of the family I am about to describe, leaning upon his arm, his own account going to show that her natural body was at the same instant lying in a state of trance behind the curtain before which he was standing with her double leaning on his arm. I do not here offer any explanation of the *modus operandi* by which this ethereal body was produced, that being beside our present purpose; but I do offer what I regard as of much more importance to us as physiologists, namely, accurate notes taken regarding the state of that most complex but most directly presented sensorial function, vision, under circumstance directly parallel to those holding when Mr. Crookes obtained his physical data from members of the same family. No one who is inclined to place even a very small amount of trust in me as an observer will feel justified in ignoring the value of these case notes. If these are of no more value than to show that apparently simple sensorial entities are in reality very complex—being constructed out of simpler elements of feeling and so liable to disturbance on account of the different possibilities of arrangement of such elements in time, number and order—the research is of certain value from an educational point of view. As a practical matter the inquiry is also useful, for it tends to show that under conditions of nervous disturbance and specific excitement the natural signs and landmarks of objective nature are interfered with. The research shows that the colors so familiar and so fixed may vanish for the time being without interference with the general consciousness or decadence of the intellectual powers, to be restored after a time to their full recognition as permanent elements of healthy sensation.

But it is as a step into the mysterious region of the unknown, between which and us the sensorial barriers become broken down on occasions, that I attach value to such an inquiry. In a word, the ladies whose sensorial disturbances I record in this paper were what are called *mediums* or *psychic sensitives*, who have been repeatedly certified to as producing the most genuine and startling manipulations of an unknown power by Alfred Russell Wallace, the great evolutionist, William Crookes, the celebrated chemist and physicist, and many others distinguished in art, litera-

*Surgeon Major, Retired (British Army.)

ture and science. Anything of a physiological nature, out of the common, during and after such manipulations must be worth recording and I hope will be my excuse for venturing to present a subject so far out of the beaten track.

During the last three years I have been bringing before the profession, through two of the leading medical societies of the South, certain physiological and psychical matters which I believe to be calculated to throw light upon that mysterious department of psychology which goes under the name of "Psychical Research." On the present occasion I have selected the subject of variable color vision as being one which was urged upon my attention from the fact that I found its most marked indication in the members of a family well known to students of the occult, and who, some fifteen to twenty years ago, were regarded as some of the best mediums in England for the manifestations of the mysterious psychic force which has been the great puzzle and paradox of this generation.

In the middle of the year 1871 I commenced the practical study of psychic science and some months after, I had my attention called to peculiar periodical variations of visual functions in the case of a young lady *sensitive* with whom I was experimenting. I perceived that she suffered from what I afterwards found was described by Charcot as the hysterical eye, or, at any rate, that her case was related to the latter. For the greater part of each month she suffered from weakness of one eye with loss of accommodation and imperfection of color vision which, however, were both corrected by a 7 or 8-inch minus glass. She also perceived black bands or rings drawn on paper to be thickened and doubled in a certain uniform way when observed through the uncorrected eye, although the sight of the other eye was very good. As this young lady was at that time becoming famous as a medium I eagerly embraced every opportunity that offered to study such cases as hers in the hope of finding some clue to the nature of the changes that take place in the cerebral machinery whenever there were present manifestations indicative of the activity of psychic force. I noticed that at a certain time each month both the power to manifest the special psychic activity and the abnormal vision disappeared together, leaving the inference to be drawn that abnormal color and ray vision and the psychic potentiality co-existed in her case and most probably were related in consequence of a strained condition of certain parts of the brain to be determined by other observations.

Further experience tended to confirm this view, for I found in the case of this young lady, during actual manifestations of great psychic power, a total disorganization of distinct color perception and discrimination while the evidence of brain strain and congestion was furnished by profuse nose bleeding coming on during the actual exercise of the psychic power. My attention having been turned in this direction I found several instances of analogous color vision disturbance in patients of mine who were haunted by subjective spectral figures not dependent upon drink, opium or similar exciting causes. I think I may safely say that in all these cases the cardiac innervation was imperfect—a sign of the general condition of the nervous system.

Some years after I first noticed the above relations I had good opportunities of studying the vision pecularities of two sisters of the first mentioned medium, both bright and intelligent young women, who did their best to assist me in my research. The elder of these sisters, Miss K. C., was affected in the left eye, generally corrected by a minus glass as in the case of her eldest sister. The younger, Miss E. C., was affected in the right eye, generally corrected by a plus glass. This interesting contrast was verified again and again. Their ages were 24 and 18 years.

In my examination of these girls I used Holmgren's wools and colored glasses of many shades, and the colors were obtained by passing polarized light through doubly refracting crystals, the latter being very convenient for the study of complementary colors and the variations occurring in the perception of the same.

In submitting the following notes I wish them to be regarded as an account of qualitative experiments made under conditions quite unfavorable to qualitative and more, properly speaking, scientific observations. I can at any rate vouch for them as representing the facts and as fully supporting my trust in the value of similar experiences with other persons of the mediumistic or sensative temperament.

I can positively say that I have never perceived a gross contradiction corresponding with an attempt to deceive. Order in disorder, for the time being, is what I have observed. Any new departure, corresponding to some fresh peculiarity of the sensitive organization, had only to be followed up to be identified as a member of a class.

April 29th, 1883, Miss K. C., a wonderful medium for all kinds of psychical manifestations, was examined with the double image prism previous to *seance*. She could see with the left eye but one image of a pencil mark ring on white paper—that one which was most refracted. She placed the point of a pencil a good way outside the circumference of the circle when asked to put it exactly in the centre. As the paper was moved the ring was unstable in its position. The prism showed two rings in the ordinary manner to the right eye. After the *seance* she could not see at all with the left eye. The right eye remained unaffected.

Miss E. C., before the *seance*, saw the two images through the double image prism, but much separated from each other. She also remarked, when she looked at the ground glass globe of the gas lamp, that one of the images, that which was most refracted, showed broad color bands taking up nearly the whole of the outline, in place of the normal mere edging of color.

May 2nd, Miss K. C., could see only one image through the double image prism held to the left eye. When the eye was supplied with a seven-inch minus glass she saw both images quite well. An experiment was then made with plates of selenite between two Nicol's prisms. The color of the purple and greenish yellow selenite were called blue and yellow, but when the true blue and yellow selenite was placed between the two Nicol's prisms the colors were not recognized at all. Thus it appears that red and green, which were components of the purple and greenish yellow, were unperceived in the first pair of colors, while the blue and yellow, the *inferred* perception after such abstraction, were not perceived when *directly* presented in the second pair of selenite colors. After the *seance*, which was a very good one, the medium could not see with the left eye ; the correcting concave glass, which was useful before the *seance*, having, after it was over, no effect in restoring her sight. The circulation, judging from the radial pulse, was weaker on the left side than on the right after *seance*, and neither ring could be seen through the double image prism.

Miss E. C. was examined before the *seance* with the double image prism and also with the selenite plates. She saw the two images correctly and also the colors, but afterwards, though she could see the two images through the prism she had lost all sensibility for color on the affected side. Both the young ladies were examined with the colored wools after the *seance* and both had lost all power of distinction.

A careful observer called my attention to a circumstance she had noticed and which had a bearing upon the variation of color perception in the case of Miss K. C. On the fourth of May, after walking through town and feeling tired she was affected with transient right hemianopsia; that is, she saw with the left half of each retina, the other half being but little responsive to the stimulus of light, or rather the visualizing centers in connection therewith. But the dark half-field proved on trial to be more marked for the right eye than for the left. When looking at a face she saw only half of it, but she could see distinctly the whole of a bright gas flame. With the left eye she could see a shaded half face, the other half being distinct, while with the right eye she could see only the half face, the other half being perfectly blank. When examined, the purple and yellowish green selenite being placed between two Nicol's prisms, the left eye saw the colors correctly, but to the right eye the red-violet or purple was reduced to blue, and the greenish-yellow to yellow; that is to say, the red was cut out in one case and the green in the other. Shortly after the examination, while moving about, she got a headache across the eyes, when on trial the hemianopsia had disappeared and the colors were the same exactly to the two eyes.

This lady at times, when similarly exposed to the sun and to fatigue, had become temporarily aphasic, evidently on account of irregular circulation in the cerebral cortex. Physiologically speaking, her case was in many respects an exact

parallel to those of the psychic mediums here described, and therefore, calculated to throw some light upon them.

May 6th Miss K. C. was examined in good light before the *seance.* She had remarked while out walking with me that the red and yellow tulips appeared to her as "gray." Examined with the colored wools—red, dark red, blue, dark blue, light blue, yellow and blue green were all called "gray." A 7-inch minus glass corrected the achromatopsia completely. When using the double image prism she saw but one ring with the left eye, but with the minus glass added she saw both rings. When a beam of polarized light from a Nicol's prism was passed through plates of selenite and the double image prism added to complete the combination, she saw the double beam in complementary colors with the right eye, its normal appearance, but to the left eye it showed as a single colorless beam. This was true for the blue-yellow selenite, and also for the red-green, or more properly, blue-red and yellow-green; a single colorless image was in all cases perceived. When, however, the left eye was armed with the 7-inch minus or concave glass, the vision of the left eye was exactly the same as the right. After the *seance* (and I may remark that all the *seances* here referred to were satisfactory in the way of manifestations of extraordinary activity,) she could not see at all with the left eye, neither color nor ray vision remained. The glass before so marked in its effect did not restore the color of the wools, which were all described as "grays."

Miss E. C. was examined the same day. She called the green, blue and yellow wools "gray." Dark blue was called very dark gray. The cherry red and dark red she called "dark red" and "very dark red." With the double image prism both eyes behaved alike, vision being normal. A check experiment was then tried. On overlapping one of the images of a piece of green glass looked at through the double image prism, by one of those of a piece of red glass placed near it, both being held up against the light, she did not perceive the change that under ordinary circumstances is due to the superposition of lights of different colors; she simply experienced the sensation of redness, the green being entirely absent from her perception. The images of blue and yellow glass overlapped appeared as "gray" without any change being noticed. The eye was then reinforced by a strong convex glass and she saw all the colored objects when brought to a distance of four inches from the eye—the green required to be brought nearest. Outside of that distance the red alone was seen as a diffused light red. When tried with the selenite plates she saw the red-violet and yellowish-green as violet and yellow using her sound left eye, but with the right eye, that which was the peculiar one, she saw only the red or red-purple shade, the yellowish-green complementary being entirely absent.

This young lady was examined after the *seance*, during which she was for a short time "entranced." It was found that she had lost all color sensation on the left side. The double image prism showed double images without color; the wools were all "gray" to the left eye. She remarked that the double images of a pencil mark ring as seen by the left eye appeared much larger than those seen by the right eye. They had to be brought much nearer to the eye before their circumferences touched than in the case of those seen by the right eye; say, about five inches in the former case, and ten in the latter. Before the *seance* this distance was the same for both eyes, as I had noticed after careful observation.

May 27th. Before the *seance* Miss K. C., in day light, saw through the double image prism two images when using the weak left eye, though she could not perceive the colors of any of the wools offered for inspection. The sight of the right eye was quite normal. After the *seance* she saw but one image of a ring drawn on paper through the prism when the left eye was used. The concave glass corrected the defect and enabled her to see both. During the *seance*, which was held in the dark, and where many lights were seen flitting about, she remarked that she could not see the lights doubled by the prism. She over and over again said she saw the lights very small and single, and this she said was the case with the two eyes. While examining her after the seance and while her weak left eye was corrected with the concave glass, to enable her to see the double image of the ring, pressure was accidentally made on the right eye-ball, that eye being closed at the time; she immed-

iately remarked that she saw four images! This extraordinary observation was repeated again and again with the same result. These images did not fade out as the prism was turned round. Before, when she saw the second image through the concave glass, one image faded out as the prism was turned. On the same occasion Miss E. C. could see the double image through the prism before and after the *seance.* She saw the colored wools somewhat better than usual; she could see red pretty well, both dark and light, but she called the blues "greens," and the yellows "gray," During the *seance*, she declared that she saw the lights which appeared in the dark, room double, but this proved on examination to be in all probability due to want of proper adjustment of the axes of the eyes, so as to let the rays fall on corresponding points of the retinæ; for when each eye was closed in turn the lights appeared to be single in the open eye. I merely mention this to show that rational precaution against error was always observed.

It appeared from observation that every member of the family, including the mother three daughter sand one son were more or less the subjects of abnormal color sensibility. It was ascertained that Mrs. C., the mother, possessed the following remarkable peculiarity: On being given light pink wool to match, the left eye being closed at the time, she picked out a darker pink from a group of colored wools. She was then given the same pink to match, the right eye being closed, and she picked out a very light brown. But strange to say she matched colors well when using both eyes. She generally makes choice of lighter shades with the left than with the right eye singly. There was also in the case of her son, a youth of 18 years, a difference of color appreciation on the two sides without pronounced achromatopsia, as in the case of his three sisters.

The following notes are very interesting as throwing light upon the puzzling question of deranged color vision:

Miss K. C. was examined with colored glasses on January 16, 1882. On that occasion she exhibited the remarkable peculiarity of reverse color vision for red and green. When green glass was held to her left eye, the right being closed, she at once said, "red, a nice bright red." This was said to be the same sensation as when red glass was held to the left eye, the right being closed, it was called "green." It was said to cause nearly the same feeling as when green glass was held before the right eye. The same was found to be the case after a *seance* on the 18th of January, the colors, however, being darkened, while yellow light was called "gray," and blue and yellow light "black." All the colors were restored when a concave glass was held outside the colored plate at a distance of four inches. When held closer to the eye it had no effect. These experiments were several times repeated with the same result.

On January 29th, 1892, an interesting observation was made in the case of the eldest sister with whom I had experimented ten years before, and with whom I had first studied the psychical import of variable color vision. When a plate of green glass was held before her weak eye she said the light was "gray," but immediately on its removal she saw "violet." When red glass was held to her eye she said it was "gray;" then, when it was taken away, she said she experienced the sensation "green." This may be relied on as certain. With her good eye this remarkable peculiarity was less pronounced. It will be seen that it gives the key to the reverse visions of her sister, described above. The elder sister showed what I may call semi-reversal.

It appears from these results that both red and green sensations may be excited by the same physical cause; but the special sensation is determined by the state of the organism at the time. The theory of color blindness advanced by Mr. W. Stanley Monck of Trinity College, Dublin, receives support from the above observations on reverse vision. His idea was that in true color blindness owing to a functional peculiarity of the organism the pair of complementary colors were excited together with a neutralizing effect, by the presence of the stimulus corresponding to either of them acting on the retinal expansion.

The conclusions to be drawn from these experiments appear to me as follows:

1st. Nervous states with a tendency to hysteria may be accompanied by a derangement of accommodation in one or both eyes, which is indicative of a more general defect of "attention" on the part of automatic centers of the brain, whereby the elements of sensation are generally com-

bined into higher psychical complexes. Observation with the ophthalmoscope and otherwise led me to the belief that functional inactivity depends rather upon a deficient supply of blood than upon direct inhibition. I found that forced attention restored the visual function in one of the sisters when I used a distorting instrument, "Stokes lens," to excite her curiosity when looking at small type.

2nd. The existence of this state is a predisposing cause in the manifesting of psychic phenomena, such as are usually shown by respectable mediums under test conditions, at least in the instances of the young ladies here referred to; while the nose bleeding and the aggravation of visual defects in them gave direct evidence of congestion or stasis of blood in the brain, and probably also of anæmia in varying and unknown degrees; the latter supposition being supported by the trains of objective nervous symptoms so commonly seen in the case of "mediums" during "manifestation."

3d. The actual occurrence of extraordinary psychical events being provisionally granted for the sake of an application of physiological theory, it appears very probable that the relationship of the cerebral cortex to the muscular system is profoundly modified, and to such an extent that psychical states find other modes of expression than those depending upon the mechanical influence of a visible and tangible intervening substance, the nervous system being thereby placed in a more direct relationship with the space content.

The correlation of the visual and muscular systems being found by observation and experiment to have been interfered with, it is allowable to speculate upon possible manifestations of physical activity in which heat does not play so prominent a part on the physical side of the sequence, other modes of vibratory action taking its place, with a corresponding change in the psychical chain. There is a complete analogy afforded in the region of mechanical philosophy when physicists attempt the direct transformation of latent energy without the intervention of the steam (heat) engine, muscle being a heat engine and the most economical that we know of.

CLINICAL LECTURES.

A CASE OF PAPULO-SQUAMOUS SYPHILODERM.

JOHN V. SHOEMAKER, A. M., M. D.,*

B. H., 28 years of age, male, single, and a laborer, gives the following history: About 6 months ago a number of blisters appeared on the toes of both feet. Contiguous blisters coalesced, formed large bullæ and his feet were for some time so sore that he could not wear shoes. Three weeks after the appearance of the vesicles papules also developed upon the feet. The lesions were of considerable dimensions, some being as large as 3 and 5 cent pieces. In a short time similar papules were observed upon the shoulders, front of chest and upon both upper and lower limbs. The vesicles upon the feet ruptured and discharged serum, but he never saw any pus.

Upon examination there were observed upon the forehead and scattered over the hairy scalp patches of a dull red color, slightly elevated above the surface and covered with thin scales. On the palms of the hand and between the fingers there were present dry fissures which, the patient asserts, began as vesicles or papules. Some of the lesions broke and discharged their liquid contents, the others were dry from the beginning. There was little tendency to suppuration, though a few were converted into pustules. The face is comparatively free from eruption. The small patches upon the forehead are situated close to the border of the hair and might escape careless observation. But below the collar bone, the trunk and limbs, both anteriorly and posteriorly, are studded with roundish or oval spots of varying sizes, from one-half inch or less to one inch or more in diameter. Some of these spots are covered with grayish scales,

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others are free from crusts and of a dark red color. Four or five superficial ulcers are seated upon the penis in the furrow behind the corona glands. These made their appearance about a week ago. About eighteen months ago he contracted gonorrhœa, but is not aware that he had at that time any sore upon his penis. About eight or nine days after the first appearance of the urethral discharge the man noticed the growth of a bubo in the right groin. When it first attracted his attention the enlargement was about the size of a hickory nut; it grew slowly for three or four weeks when it opened spontaneously and discharged a considerable quantity of pus. The growth was painless and did not oblige him to lose a day's work. The patient states that the bubo healed in three or four days after opening and never gave him any subsequent trouble. He does not think that his hair has thinned or fallen, and he has no ulcers or sores in the mouth, no glandular enlargements other than the bubo. He has not suffered from nocturnal bone pains. His shins are not tender.

Six months ago he had a chancre upon the left side of the glans penis. The sore was single, large, hard and dry. He does not know that it was followed by any glandular swelling in the groin. The chancre appeared about two weeks after exposure and about two weeks after the vesicles first developed upon the toes.

The patient has never had sore eyes. He states that there is some itching of the eruption when he becomes warm in bed. There is no smarting or pain. His hands are not painful when not in use, but render him unfit for work. He feels as strong as ever he did and could work were it not for the condition of his hands. His appetite is good, his bowels are regular and he sleeps well.

As often happens when we have to deal with uneducated patients the history is indefinite and, to a certain extent, confusing. The extensive eruption upon the skin undoubtedly represents a late lesion of syphilis. This, together with the fact that vesicles appeared upon the feet two weeks before what he terms chancre was observed upon his penis six months ago, necessitates the conclusion that the date of infection dates back months. Whether the man had at that time a urethral chancre, a superficial erosion which escaped detection, or a dry papule without erosion I shall not stop to speculate. At any stage of syphilis the physician is obliged to be circumspect and compare the history with the lesions. Our picture of this disease is necessarily composite, derived from the study and comparison of many cases. We must listen attentively to the history which the patient gives, but we must accustom ourselves to eliminate errors of which he is unconcious. It is reprehensible to denominate every sore upon the genitals as a chancre. At the same time we must make ourselves acquainted with the different forms which the initial lesion may assume. As a farther illustration of the necessity of close investigation I revert to the fact that at the present time, when he has not had sexual intercourse for a considerable period, a number of ulcers are situated upon the penis.

The development of a glandular swelling in his groin eight or nine days after the beginning of a urethral discharge is significant of the presence of a concealed or undiscovered chancre. This bubo enlarged slowly and painlessly for three or four weeks. The course is that of a syphilitic rather than a chancroidal bubo. The latter lesion is of an acute and painful type, pursues a rapid course and terminates in suppuration. The bubo of syphilis, as a rule, does not suppurate. The exceptions to this rule, however, are sufficiently numerous. It is true that a bubo is sometimes seen as a result of gonorrhœa, but gonorrhœal adenitis is a rare complication and is always painful.

There is no history of early secondary manifestations. The patient cannot remember having syphilitic fever or nocturnal pains. His shins are not at the present time tender. He is not aware of having had any form of eruption upon the skin until within the last six months. He does not think that his hair has thinned or fallen. He says he has never noticed the hair to come away in combing. It is undoubtedly thin, however, but he asserts that this was always the case. Though there is no actual baldness I believe that some loss of hair has attended the rash which occupies the scalp. The patient is not conscious of ever having had sores within the mouth, nor has he suffered from iritis. The rash gives rise to some itching. Itching, though not

usual in syphilides, sometimes occurs and I have, indeed, occasionally seen cases in which it was a pronounced feature. In some cases the itching is due to pressure of the clothing or some other external source of irritation and not to the development of the rash.

Osteocopic pains generally accompany the advent of secondary syphilis. They seem to have been absent in this case. At times, with or without a clear and definite history of primary disease, these pains in the bones assume an aggravated character. The writer recalls especially two instances. One was that of a young man in whom there had been doubt as to the nature of the sore upon the penis. The outbreak of constitutional syphilis was preceded by severe frontal headache accompanied by earache. The second was that of a young woman who had been upon the town, who had been treated for other forms of venereal disease, but who was not known to have had a chancre. The pains in the tibiæ were of unusual severity.

What shall be thought of the chancre which the patient is said to have had six months ago? The description here is plain and reads like that of an initial lesion. It is possible for reinfection to occur though cases of the kind are very rare. In genuine reinfection, however, the period of six weeks elapses before the manifestation of secondary disease just as in the ordinary type of the disease. According to our history an eruption preceded for about two weeks the appearance of the so-called chancre. Whatever may have been the nature of the sore, therefore, it cannot be considered as the source of the eruption upon the skin. Nor was it accompanied by any bubo. The man informs me that the first lesions he observed were vesicles and bullæ upon the toes and other parts of the feet, but that in about three weeks' time papules also made their appearance upon the feet and subsequently upon the general surface of the body. When he came under my observation the lesions were of uniform type with the exception of those upon the hands. The large elevated patches were evidently formed by the coalescence of neighboring large papules. The appearance of the lesions has already been described.

I entertain no doubt as to the syphilitic origin of this extensive eruption. That the history is not clear is not an extremely rare peculiarity. The case is remarkable, however, for the extensive and general involvement of the skin. The lesion is the papulo-squamous syphilide, or, in other words, a transformation of the large papular syphiloderm.

The large, flat or lenticular papules of syphilis is a late secondary manifestation and may not occur until the second or even the third year after infection. At times, again, it may, as in the present case, be the first cutaneous manifestation of the disease. Individual papules vary in size from a small shot to a bean and are round or oval in form. This eruption is always of an intractable character. The papules are very apt, as in the case of this patient, to appear upon the scalp and forehead, in which situations they are known as "corona veneris." They grow slowly by peripheral extension, remain stationary for a number of months and disappear by absorption, generally leaving behind them pigmentation and atrophy.

The lenticular is not infrequently transformed into the papulo-squamous syphilide, the predominant form in the case which I have portrayed. The surface of the papules or patches is covered with a thick, dry or grayish scale, which can be easily detached. After removal a slow reproduction of the scales takes place. This process may continue for years. During recovery the scales cease to form and the infiltration is absorbed.

The papulo-squamous syphilide exhibits a decided predilection for the palms and soles. In those situations the patches are often so large as to involve nearly the whole surface. They give rise to a figured condition of the skin and to considerable pain. They may also involve the nails.

The disease with which this form of syphilitic eruption is most likely to be confounded is psoriasis. But in psoriasis the scales are thicker, more abundant, of a silvery, waxy or mother-of-pearl color. They are situated especially upon extensor surfaces. The syphilitic scales are grayish, yellowish, or dirty white in hue. The accumulation of epidermic scales is the prominent feature of psoriasis. A squamous syphilide is not unusual upon the palms and soles while psoriasis rarely attacks those regions. When the epithelial scales

of psoriasis are removed a bleeding or bright red surface is exposed. The scales of the syphiloderm are easily rubbed off, leaving a dark red papular surface. The scales of psoriasis overlap the red bases on which they are situated; those due to syphilis do not completely cover the elevated surface upon which they rest; they may only constitute a sort of fringe around the margin of the patch. Psoriasis most often developes at the age of puberty. Syphilis is not usually encountered at so early an age. Other evidence can usually be obtained pointing to the presence of syphilis.

There is scaling in squamous eczema, but this affection bears no close resemblance to the squamous syphilodeum. The primary lesion of eczema is erythema, vesicles or pustules; the scales are thin and easily detached. They are seated upon a bright red surface and are more frequent on flexor or extensor surfaces. Chronic eczema of the palm exhibits more thickening and is attended by burning and itching sensations. The patches of squamous eczema are irregular in shape and blend imperceptibly with the surrounding skin.

The treatment of this case is that of secondary syphilis. The man is strong and well nourished, has a good appetite and sleeps well. Special tonic medication is, therefore, not needed. His system should be brought as speedily as possible under the influence of a mercurial. The special form in which the metal should be administered is a matter of secondary importance. I generally give the green iodide of mercury—one-eighth grain in combination with about $\frac{1}{18}$ grain of tartar emetic. This amount is given thrice daily and does not cause tenderness of the gums nor diarrhœa. I increase the dose until a fourth or a third of a grain of the mercurial is taken four times a day. A more rapid and effective method of influencing the system is by the hypodermic injection of some preparation of mercury. Many combinations have been devised for this purpose, but I have long been in the habit of using the corrosive sublimate. The solution which I employ contains four grains of corrosive sublimate to one ounce of water. It is well to begin with the injection every day of five minims of this solution and increase the dose minim by minim every second or third day until improvement is manifest or the constitutional effects of the drug are produced. The dose may then be reduced and the influence maintained by smaller quantities until recovery.

COMMUNICATIONS.

REFLEX DISTURBANCES IN THE CAUSATION OF EPILEPSY*

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Epilepsy must be considered as a complex symptom arising from a multiplicity of causes. That form of epilepsy due to peripheral reflex irritation becomes every day more and more realistic to me so that I am fast becoming a skeptic on the question of idiopathic spontaneous epilepsy.

The tendency of the times is to find a cause for every effect, and to regard with suspicion every effect that has no appreciable cause. If after an unsuccessful attempt to find some provocative agent and the epilepsy, dating from infancy, is coupled with an inherited neurotic temperament, then I am satisfied with the term "idiopathic." This designation however signifies but little, except perhaps to believers in spontaneous generation; it does not imply that some cause may not be, or may not have been present, only that we are unable to find it and so put a coat of scientific varnish on an otherwise faulty and unpolished conclusion.

We learn by studying the fundamental laws of nature that all matter is in a constant state of motion and anything that hastens or retards this vibration produces an equivalent amount of heat or heat values. Moreover, that force cannot be annihilated. If destroyed in one form it reappears in another without suffering any loss. Apply these laws to the human sys-

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tem and we can account for reflex epilepsy perhaps as follows:

A perfectly normal nervous system holds sway over a healthy vigorous organism. The functions of secretion, excretion and assimilation follow closely the physiological laws governing them. The result of these metabolic forces means work, either mental or physical or both, along some clearly defined channel. The whole system then, is in a normal state of motion, each fibre and gland working faithfully and assiduously to keep the structure in a state of perfect equilibrium. Perchance a nerve trunk or nerve terminal is subjected to some insult causing abstruction, retardation or interference of its molecular vibration.

Accordingly heat units or heat values are generated, because of this irritation; are reflected to the great heat centre—the brain, and there converted into heat equivalents such as pain, tremor, spasms, etc., referable to the seat of the initial lesion. The process continuing indefinitely, without relaxation, accumulation of heat values ensues and an explosion of nerve force is the result.

Reflex epilepsy means therefore a state of irritation of the cerebral centres, produced not by a central, but by a peripheral lesion. The peripheral irritation is reflected to its cerebral centre in the same manner that a central or cerebral lesion reflects the irritation to the extremities. Thus in Jacksonian epilepsy a lesion pressing upon the motor centre of the right arm is manifested by spasms beginning in that arm; and likewise in general epilepsy the point of origin of the aura denotes most probably the seat of irritation in the certical centers of the brain.

The line of demarcation between reflex and traumatic epilepsy should be sharply drawn. In the latter the irritative lesion is directed and local, the result of a trauma to the cranium and the consequent convulsions are in a degree amenable to the surgical art; still not to such an extent as was claimed by observers a few years ago. This form of epilepsy will receive worthy attention in a subsequent paper.

It is true that not every scar, ingrown toenail, phymosis, pinworm or what-not begets reflex cerebral disturbance, or else this form of disease would be as wide spread and prevalent as was the itch during the middle ages. Therefore some other property or idiosyncrasy must be present in order that the conditions be fulfilled. A neuropatic disposition either inherited or acquired is the *sine quâ non* of this symptom-complex.

This need not necessarily be present at the time the irritation commences, but may be saddled upon the system as the result of the tireless, unceasing effort of the brain to counteract the nerve strain. The patient in a short time becomes peevish, excitable, anæmic and the parents will state that the child has of late become nervous. In those cases of an inherited neurotic disposition the convulsive attacks appear much sooner after the advent of the irritative lesion, and as a rule the epileptic habit is early and fast engrafted upon the constitution. This irritation once relieved or remedied the habit still persists in these latter cases and, to all intents and purposes, the patient has the appearance of suffering with idiopathic epilepsy. When such is the case the nature and origin of the diseases are almost impossible to ascertain, and the epilepsy is classified as spontaneous or inherited.

The question may now be asked, what shall we look for in deciding the immediate causation of reflex epilepsy? As a rule, whenever practicable I have the patient remove all his clothing and examine him thoroughly, beginning with the feet.

Ingrown toenails, corns and callouses are not infrequently the cause of epilepsy. Scars about the limbs, disorders of the genitalia, incomplete descent of one or both testes are some of the causes in youth. In girls, the condition of the clitoris and vulvæ should be ascertained, also whether there is incontinence of urine, or the presence of oxyurides in the vagina or rectum. Hare in his monograph on Epilepsy says, "it may be laid down as a fact, that in all cases in girls in which epilepsy of unknown cause develops, the vagina should be examined for the presence of any pin worms which may have emigrated from the rectum." The condition of the rectum should not be overlooked, but carefully explored especially for ulcers and irritating hemorroids.

Coming to the head we have an extensive field for examination. The mouth nose, ears, eyes and scalp may all harbor seemingly trivial disturbances which, un-

der other circumstances, would pass unheeded and unnoticed. Disorders of dentition, such as faulty direction in the growth of the teeth, hidden fangs, caries, neoplasms in and about the buccal cavity, retained foreign bodies in the pharynx, scars,—the result of ulcerative or specific processes about the tonsils, tongue and larynx, palypi and foreign bodies in the nose and ears, disorders of refraction, in short whatever can impinge, either directly, or indirectly upon nerve trunks or nerve filaments, other conditions being equal, may produce reflex symptomatic epilepsy.

These then are some of the more common of the external causes and to discover them is easy—very easy as compared with the probable internal causes. No doubt you are all acquainted with the stomach as a very frequent contributor to this subject. Those of us who pay special attention to nerve diseases receive many cases labelled epilepsy due to stomach troubles. The round worms of the intestines are a common cause and have been recognized as one of the most prolific factors in the etiology of this disease. Disturbances of nearly every internal organ have, according to various writers on this subject, been at one time or another instrumental in precipitating this. There are two organs however in this list of causative agents to which I briefly invite your special attention, namely the stomach and the urethra.

Two of the most important causes known to man, lay or professional, the stomach because it receives not only that which nourishes and sustains the human economy, but nearly every thing else that cannot be conveniently served in some better way,—the urethra, because through it flow "little drops of water" mixed with "little grains of sand,"—at times another fluid coming from another gland. In a boy—and not necessarily such a small boy either—what two organs are subjected to more abuse and refuse, and what two organs call forth more care, repair and dispair? Surely none.

The importance of the stomach as a primary etiological factor is in my opinion over estimated. I will not deny that in some cases the ingestion of indigestible matter invites convulsions, and that after a thorough emesis or purge the spasms disappear. Many patients tell their physicians that such was the cause, the starting point of the first attack, and the physician confidingly tells the specialist the same story. They will further testify that they can foretell the onset of an attack by the voracious appetite, peculiar sensations at the pit of the stomach, vomiting of watery fluid and the desire to eat anything and everything that comes within reach. Put this patient on a bland or exclusive milk diet and keep him on it for months—give him pepsin, trypsin, papoid and *strap oil until he turns blue in the face* and, if your experience is similar to mine, he will continue to convulse and froth at the mouth, and you are fortunate indeed if his parents do not become similarly affected. I believe that in many of these cases we are on the wrong trail and must seek the cause elsewhere. The symptoms denoting gastric affinity are not so much epileptic-genic as epileptopathic. These disturbances, as the patient and parents declare, hold a close relation to the paroxysms and I believe they are only localized epileptic attacks or epileptic equivalents. The increased tension in which the nervous system is held just prior to an attack stimulates the gastric glandular system through the sympathetic and pneuma-gastric nerves calling forth an abnormal secretion of gastric fluids and the flour of gastric juice means an appetite. The stomach naturally becomes tender and hyperæsthetic under such rule long continued, and anything that irritates or demands undue exercise of the function is rewarded with stern rebuke. I have the stomach perform similar antics in hysteria and general paresis, and yet neither you nor I would affirm that the gastric trouble was the cause of these ailments.

Now turn to the urethra such as is controlled by a boy from his eighth to his eighteenth year. He may live high or live low, be a street urchin or a mother's pride, a country lad or a city tough, it matters little, he is for all that a boy, and as dogs will be dogs so boys will be boys. The same old story he has eaten green apples and has had fits; he has been doctored for his stomach and strange enough the fits still persist. As he comes into your office you notice that his head hangs, his eyes are dull and sunken, his gait heavy and labored and his answers are backward and evasive. You put the question direct and with force and he admits that he has occa-

sionally masturbated—but that he learnt it from the other boys. Now instead of upbraiding and threatening him you do your duty and examine his genital organs, inside as well as outside and, in nine cases out of ten, you will find some irritation seated most generally in connection with the penis. The prepuce may be too long or too short, adherent or constricted, the frenum may be too short, causing a mild form of hypespadia, or the prepuce has never been everted and large accumulations of smegnea are present. Supposing that none of these conditions are found you have still the most important examination to make—the exploration of the urethra, and how many times is it undertaken in these cases? The boy has never had connection and hence you infer no gonorrhœa with its attending inflammations and strictures, and why waste time in such an absurd procedure. But try to introduce a No. 12 or 15 French Benas catheter and although they glide along so nicely at other times—you are beset with obstacles in passing through constrictions, evading the boy's hands and in convincing him that his urethra is anæsthetic and he does not feel any pain.

I am thoroughly satisfied that there are many disturbances present in a good boy's urethra which prompt him to vicious habits, and they in turn, if his constitution is impressionable, lead to serious nervous disorders such as chorea, epilepsy and neurasthenia. Vegetations, polyhi, cysts or other neoplasms in the walls of the urethra creating strictures, hyperæsthetic areas, low forms of inflammation, etc., are translated by such symptoms as priapasm, spasm of the urethral muscles, frequent micturition, spermatorrhœa, masturbation and sexual excesses. The influence of these morbific agencies upon the central nervous system is too well known to be here reviewed. The more a boy's urethra is examined the more I am convinced that it's not what it is cracked up to be; furthermore that a virgin urethra may be as full of strictures as his pockets are of marbles in the spring—still further that, by virtue of the morbid processes present, he may have an urethral discharge which is as innocent and inocuous as are the conditions giving rise to it. In a short period of time I have treated six boys with reflex neurosis, five of which were reflex epilepsy due unquestionably to disturbances along the urethral canal. In some of these cases, I have found the meatus urinarins surrounded by a red border or ring indicating perhaps the congested state of the urethral lining. An oscopic examination should never be omitted, for by its relations the exact nature of the lesion can be determined.

My treatment of these patients has consisted, besides the administration of the bromides, in the use of a mild galvanic current of from one to five miliamperes, each treatment lasting about three minutes weekly. In the employment of the ordinary urethral electrode I have been annoyed by several inconveniences. The olive point electrode is more or less inflexible. Besides having a metallic point, its introduction in many cases becomes difficult owing to the fact that a contraction of the urethral wall is produced through the stimulus imported to the mucus membrane by the metal. Then too, in cases of stricture, vegetations, etc., where the electrolytic action is desired, the metallic point is liable to produce injury in its passage or, when the olive is in close proximity to the sphincter vesicæ, a strong current may produce unpleasant sequelæ.

To overcome these drawbacks Messrs. Fiemann & Co. have made for me an electrode possessing lightness, flexibility and a non-metallic bulbous point. A benas catheter or bougie is encircled with a narrow steel band about 1 to 1½ inches from its bulbous extremity. This band is connected with the attachment by means of a soft copper wire extending through the interior of the catheter. The electrode is made in two sizes, No. 15 and 20 of the French scale. In all cases thus far, in which it has been used, it has given satisfaction.

All That is Necessary.

The American Association for the Advancement of Science says that the following lines are all that is necessary for the physician to learn in order to prescribe in the metric system:

1000 milligrams make one gram.
1000 grams or cubic centimeters make one kilo or liter.
65 milligrams make one grain.
15½ grains make one gram.
31 grams make one ounce, Troy.

A PORTABLE COMBINED OPTOMETER AND OPTHALMOSCOPE (OPTHALMOMETROSCOPE).

ROBERT C. MOON, M. D., Philadelphia, Pa.

Most practitioners of medicine have probably experienced at some time or other, when at a distance from their consulting rooms, the need of a portable, and at the same time an efficient set of lenses for testing the refraction of their patients' eyes. With the hope of meeting this want I have had such a set of trial lenses constructed, with an Ophthalmoscope attachment which greatly increases its usefulness. The instrument consists of the following parts:

1. A revolving disc three inches in diameter, having one blank aperture and

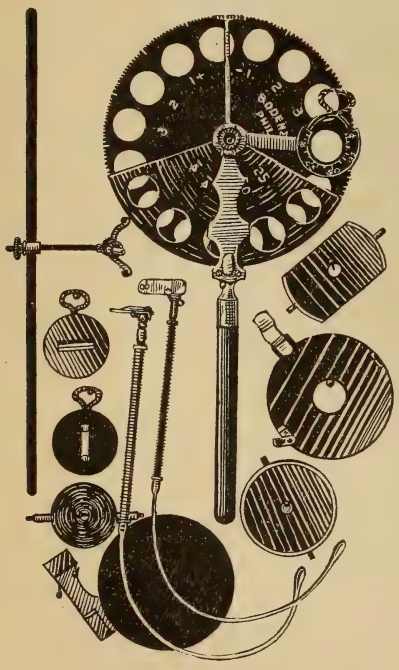

Fig. I.

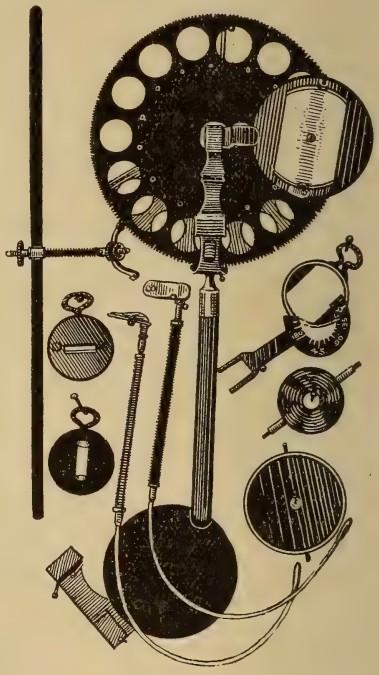

Fig. II.

carrying thirteen spherical lenses, viz.: +1, 2, 3, 4, 5, and 6 D., and—1, 2, 3, 4, 5, 6, and 7 D.; the minus series being represented in red. The edge of the disc is milled to facilitate its movement by the thumb and fingers.

2. A quadrant which is made to revolve around the same centre as the disc by means of a projecting arm with a bent extremity. It carries five spherical lenses, viz.: +0.25, +0.50, +0.75, +14, and —14 D. These spherical lenses, singly or in combination with those in the disc, give eighty-three different powers with 0.25 D. intervals up to 7 D., plus and minus, and with 1 D. intervals from 7 D. up to +20 D. and —21 D. All the lenses measure 11 mm. in diameter, and when those in the disc and quadrant are being used together, the sum of their powers can be readily determined by the addition or subtraction of the figures which are in the same line. For example, if +1 D. in the disc be combined with +0.75 D. in the quadrant, the resultant power is +1.75 D.; if —1 D. in the disc be combined with +0.75 D. in the quadrant, the resultant power is —0.25 D., and by combining —7 D. in the disc with +14 D. in the quadrant, we have +7 D. The revolutions of the disc and quadrant are controlled by spring stops, securing accurate adjust-

ment of the lenses, Either the disc or quadrant can be moved separately, or either can be rendered immovable at pleasure by means of slides fitting into notches in their margins. (Vide Fig. 1.)

3. A cell for carrying cylindrical lenses. It is graduated for every 15 degrees, and can be attached on the right or left side of the disc.

4. Fourteen cylindrical lenses separately mounted in rings, viz.: plus and minus, 0.25, 0.50, 0.75, 1, 1.25, 1.50, and 2 D. These cylindrical glasses in combination with the spherical lenses are sufficient for correcting a large proportion of the astigmatic cases which present themselves, and are so mounted that their axes can be rotated in the cell through 180°. A stenopæic slit for diagnosing astigmatism can also be used in the same cell.

The optometer thus constructed can be readily converted into a refraction Ophthalmoscope (Vide Fig. 2.) by further attaching either of the following:

5. Two ophthalmoscope mirrors, the one a circular plane, and the other a "tilting" concave mirror of 25 cm. focal length. Either of these can be swung upon a perforated plate which is fastened into either side of a box behind the disc. The plate acts as a shield to the observer's eye and when the tilting mirror is used it can be inclined to it at any desired angle. All annoying reflection from the instrument for the lenses can be avoided by placing the light on the right or left side of the patient's head as one or the other eye is being examined. As the mirrors are easily detached from the perforated plate the latter can sometimes, with advantage, be allowed to remain attached to the disc when the refraction is being tested as the size of the aperture corresponds with that of the lenses.

6. A well-balanced handle for holding the instrument.

7. One +13 D. lens, one and one-half inches in diameter, for the examination of the eye by the indirect method.

This combined Optometer and Ophthalmoscope, with its handle, is very light and portable, whilst it has been found in practice that the lenses are sufficiently large to preclude the likelihood of fallacious results from too great an exclusion of extraneous light.

Fig. III.

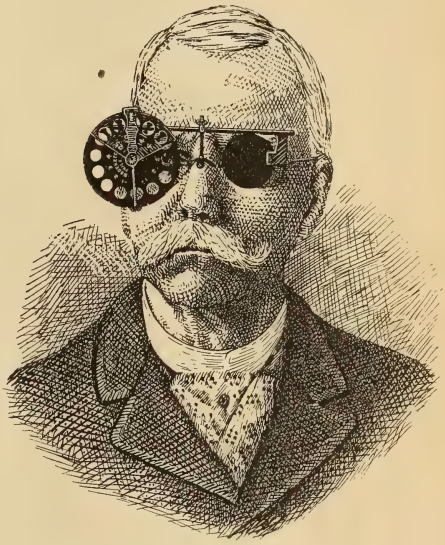

Fig. IV.

It is to be hoped that this little instrument may not only be of occasional service to the specialists, but also prove a valuable and economical addition to the armamentarium of many physicians who are debarred by the costliness of the ordinary optical outfits from investigating optical cases which present themselves in their practice. It occupies so small a space that it can easily be carried with other instruments in a handbag adding but a few ounces to the weight.

Those who desire a more complete instrument for binocular correction can have two discs, each constructed as described above, mounted upon a light frame with an adjustable nose rest and the Boden spring temples attached at the sides, so that both eyes can have their correcting lenses accurately placed in front of them. (Vide. Fig. 3.)

If it be desired a single disc with its quadrant can be mounted upon one end of the frame, and an opaque disc for covering the eye not under examination upon the other end. (Vide. Fig. 4.)

In the latest model a screw arrangement has been added to the bar of the frame by which means the lenses can be adjusted accurately before each eye *separately*, so that if there be any strabismic deviation there will be no difficulty in making the centres of the pupils correspond with those of the lenses.

When the single instrument is held in the hand during the examination of one eye the other can be covered by an ordinary eye shade.

This instrument can also be used as a Skiascope, and dispenses with the necessity of using any special disc for studying Retinoscopy, or the so-called "Shadow Test."

Any other series of lenses beside those named can be substituted if desired; more cylindrical glasses can be furnished and a special concave mirror of 8 cm. focal length for the direct examination can be adapted to the instrument. The mirror can be inclined at any angle. By means of a small Maddox rod which fits into the cell referred to above, the various anomalies of the occular muscles can be detected and prisms of a suitable size can be used for arriving at a complete diagnosis.

To sum up, the complete instrument comprises an Optometer and Ophthalmoscope, a Skiascope and a trial frame with means for testing the occular muscles, and, as the various parts are constructed separately, one or more of them can be purchased as required.

The instrument is made by Messrs. H. C. Boden & Co., Opticians, Philadelphia.

CERTAIN FORMS OF SEPTICEMIA RESULTING FROM ABORTION.*

ANDREW F. CURRIER, M. D., New York City.

The forms of septicemia to be considered are not exclusively peculiar to abortion, but may follow the termination of the pregnant state whether that has occurred maturely or prematurely. Modern antiseptic midwifery has reached nearly ideal conditions in its care of the parturient woman and her offspring at term. Assistance is almost always available to a woman at such a time, and if she enters a maternity hospital nothing is lacking, as a rule, which would minister to her safety and recovery.

How different is the situation with reference to abortion. In the first place it is an unnatural process, while parturition at term is natural and physiological. It signifies the interposition of disease or violence, and the disturbance to a greater or less degree of the equilibrium of natural forces. It is regarded by many women as too trivial a matter to require the attention of a physician and is attended with carelessness and neglect. It is probably responsible for more of the serious disease which affects the pelvic viscera of women than any other cause.

Septicæmia in the light which has been shed upon it by bacteriology signifies that poisonous elements are circulating in the blood, which are distributed more or less extensively over the body and cause serious and often fatal consequences. These elements have been found, isolated, cultivated and the culture fluids successfully used in reproducing the phenomena of the disease, microbes similar to those which were injected being found in the white blood corpuscles, the blood vessels and the subcutaneous tissues contiguous to the point of inoculation. Such experiments have been repeatedly performed upon animals, and Garré, Bumm, Bockhardt, and Schimmelbusch have performed them upon their own persons.

In septicæmia following abortion the products of conception have not

*Read before the New York State Medical Society, February 9, 1893.

been completely removed, there has been decomposition and absorption, or the introduction of poisonous elements from without. The intensity of the disease in a given case will be regulated by the virulence of the poison, the resistance of the individual and the efficiency of treatment. Two varieties of bacteria are principally efficient in septicæmia, streptococcus pyogenes aureus, and staphylococcus pyogenes aureus. They may be of variable activity, may modify each other's action, and may be modified by the action of other bacteria which under normal conditions of the body may be harmless parasites (e. g. bacterium coli commune). The resisting power of the body is a very variable quantity, differing with temperament and disposition, and modified by its surroundings.

The cases of the disease may be divided into mild, severe and uncontrollable varieties or groups; the first always ending in more or less complete recovery, the second often terminating fatally, the third being almost invariably fatal.

In the first group the abortion occurs most frequently at the third or fourth month of gestation after more or less pain and hemorrhage, and is followed in a few hours by clots and portions of the fœtal envelopes. Blood and membranous tissues continue to be discharged for the next three or four days. Then come chilliness, constipation, sallowness of the skin and anxious facial expression. The uterus will be enlarged, soft and sensitive; the os patulous and the uterine discharge offensive. The general condition will resemble that of the continued fevers of mild type. If the surroundings are favorable and the treatment intelligent, including curettage, gauze drainage of the uterus, and judicious use of salines, calomel and tonics, prompt recovery will ensue. In another class of mild cases in which the patient is neglectful of herself, the surroundings bad, and the treatment inefficient and unskillful there may be recovery after an experience with endometritis or salpingitis, and the conditions will be favorable for much trouble in the future.

In the second group of cases the symptoms are more serious than in the first, the result is fatal for some of them, while for others there is partial recovery with more or less diseased pelvic organs. In these cases there may be a history of precedent abortions with resulting induration of the uterine tissue, or of criminal operation or serious disease—such as cancer, tubercle, or syphilis, or the patient may have been so weakened by other disease, by work or worry that little resistence could be offered to the inroads of septicæmia. The course of the disease may be febrile or afebrile; there may or may not be suppuration; there may be steady progress to a fatal issue, remissions with final recovery or remissions ending in death. It is difficult or impossible to delineate exact types of the disease for there would be modifications in almost every case, but it is possible to discriminate one form in which the toxic, and another in which the inflammatory element predominates. In the toxic cases there is an initial chill without high temperature, but with small and quick pulse, frequent and shallow respiration. The facial expression is anxious and the skin sallow. There is tenderness of the uterus and its surroundings and there may be induration in the groins and at the vaginal vault. The odor of the breath is disagreeable (but I have never noticed that it is *sweetish*), the mouth and tongue are dirty, the stomach and intestines are paralyzed, the abdomen distended and sensitive, but the pain is not the cutting pain of acute peritonitis. The appetite is wanting and vomiting is distressing. When bile is vomited for any length of time I have always observed a fatal termination. There is insomnia, delirium and muscular trembling and twitching.

Treatment must be energetic from the beginning and include curettage, uterine and vaginal irrigation, oxygen inhalation, alcohol, fluid nourishment and turpentine enemata. The latter are often of the greatest value, but must not be used too often nor in too great concentration. Such treatment may cause disappearance of the grave symptoms and convalescence and recovery may ensue, or foci of infection may be re-kindled and death follow quickly. In the inflammatory cases the symptoms are severe, but they are less insidious than in the toxic. There are well marked evidences of peritonitis, or of cellulitis with rapidly extending induration in the pelvis and abdominal wall. The temperature, pulse and respiration will be febrile and fluctuation may be expected in the

vagina, rectum, gluteal or inguinal region. Incision and irrigation may be followed by relief and recovery, or the issue may be pyæmia and death.

In the third group of cases there may be sepsis and death within a few hours or days, or there may be extensive suppurative processes resulting fatally in a longer or briefer period according to the endurance of the patient. The former are absolutely hopeless, the latter nearly so. Successful abdominal sections for the suppurative cases have been reported, but they are rare.

The foregoing observations have been made on the basis that septicæmia is a disease or condition to which peritonitis, cellulitis, lymphangitis and phlebitis are subsidiary. This is in accordance with bacteriological manifestations and simplifies much that has heretofore been vague and confusing.

SOCIETY REPORTS.

THE SURGICAL SOCIETY OF LOUISVILLE.*

Stated Meeting of November 14th, 1892.

THE PRESIDENT, Dr. A. M. Cartledge, in the chair.

STRICTURE OF THE ŒSOPHAGUS.

DR. W. C. DUGAN: This little patient has a pronounced stricture of the œsophagus, a result of swallowing caustic. The stricture at first was impermeable, and in order to save the patient's life gastrostomy was performed last February at the Children's Hospital. The question I want to ask is whether it would be advisable now to close the opening in the stomach. A bougie about the size of your finger can easily be passed through the stricture, and the child is able to swallow all its food in the natural way. When the operation of gastrostomy was performed, the patient was very thin, and absolutely unable to take any nourishment at all. You will see from his appearance to-night that he has gained in flesh by being fed through the tube, and as he is now able to swallow with little difficulty, I am in favor of closing the opening. The wound gives him a great deal of trouble from irritation, there is some leakage, and the opening sometimes becomes prolapsed.

DISCUSSION.

DR. A. M. CARTLEDGE: How often did you dilate the œsophagus with bougie?

DR. W. C. DUGAN: Every three or four days.

DR. A. M. VANCE: I am inclined to the opinion that the time has come when this wound should be closed. I do not see any reason now for keeping it open, as the patient is able to take nourishment into the stomach in the natural way.

DR. W. L. RODMAN: I think there are two sides to this case. While I am inclined to agree with Dr. Vance that this fistula should be closed, yet I think, when the child begins to swallow hard substances, the stricture is likely to close again and it may then become necessary to re-open the gastric wound. This has been proven in my experience recently with a similar case at the city hospital.

DR. I. N. BLOOM: I would like to ask Dr. Dugan to give some idea of how he would treat the case after closure of the fistula; the frequency with which he would use the bougie, and the probable result.

DR. WM. CHEATHAM: Intubation is often used in these cases. I have a set of tubes for this purpose. They can be worn permanently.

DR. W. C. DUGAN: In answer to Dr. Bloom, I propose to dilate the œsophagus every week until Dr. Cheatham takes charge of the case and uses his tubes.

In regard to closing this fistula I hardly know what would be the best method. I am rather inclined to think the best procedure would be to do a plastic operation, making an incision a little lower down and tearing the stomach

*[Our correspondent explains that the delay in presenting this report was due to misplacement of Dr. Cheatham's essay. The value of the material, alone permits of its publication at this late date.—ED.]

loose entirely; that is, separate the mucous membrane and put in a puckering string.

Dr. A. M. Cartledge: I differ with Dr. Dugan as to the manner of closing this fistula. I do not see the necessity for separating the stomach, nor making another incision. I think a good result could be obtained by simply paring the edges and using Thiersch solution. I believe the fistula ought to be closed as the stricture has been dilated to such an extent that I think it will be the cause of no further trouble, for the present at least.

PATHOLOGICAL SPECIMENS.

PYOSALPINX.

Dr. W. C. Dugan: I have two specimens removed from the same patient, a pyosalpinx with abscess, and one ovary. The patient was twenty-six years of age and four years ago had her first attack of pelvic trouble which was diagnosticated as "Ovarian Neuralgia," and she was treated for that trouble. In a few months she had another attack and so on, this being the fourth. At the time of the operation she was suffering from acute peritonitis, and in the midst of her menstrual period. From the fact that the peritonitis seemed to be becoming more and more general operation was performed without further delay. The uterus was prolapsed in Douglas' pouch almost including the vagina, forcing the wall down; the adhesions were very dense and extensive, and this is the point I wish to call especial attention to. The patient has made a rapid recovery, without an untoward symptom. No drainage was used.

DISCUSSION.

Dr. A. M. Vance: I assisted in this operation and I certainly never saw adhesions so dense considering the size of the growth. We had to enlarge the original incision before it could be brought up at all. I congratulate Dr. Dugan upon the excellent result.

Dr. W. C. Dugan: This patient was taking three or four grains of morphine daiiy up to the time she was operated upon; it has not been necessary to give any since.

NECROSIS OF PUBIC BONE.

Dr. A. M. Vance: About a year ago Dr. McIntyre, of New Albany, Ind., brought to me a patient forty-five years of age, who had for several years had a fistula over the left side of the pubic bone, just on the outside of the external abdominal ring. At that time I could find nothing with the probe and advised operation as the only means of curing it, but this was declined and I did not see the patient until day before yesterday. The man came back and said he had tried a year's treatment with no benefit and desired an operation performed. Without probing or looking at it I had him sent to the infirmary and, opening the sinus, removed this little piece of bone, evidently one end of the pubic bone. It was perfectly loose and sequestrated; it was near the surface, entirely detached, and lying cross-wise in the opening. It is rather uncommon for the pubic bone to become necrosed; there is no history of injury or syphilis. The sinus was open to the detached piece of bone and had been running for four or five years.

Dr. A. M. Cartledge: Necrosis in this region is extremely rare except from injury.

Dr. Turner Anderson: This is the second case of the kind I have seen. The first was a young lady that I attended who had osteitis affecting the symphysis. She was very promptly relieved by operation and scraping.

MASTOID DISEASE AND BRAIN ABSCESS.

Dr. Cheatham read a paper on the most recent treatment of disease of the mastoid and brain abscess, the result of disease of the middle ear, and reported several cases. One, a young man who came to him with acute suppuration of both middle ears, July 28, 1892, has vertigo. I put him on appropriate treatment. August 1st, he reported with increased vertigo and great tumefaction of tissues over mastoid and tissues of right side of neck; great pain over right side of head. August 11th, vertigo increased; neuritis of right optic nerve; tumefaction over mastoid and of neck nearly gone; nystagmus. Temperature 99.2. August 13th, temperature normal. Says he feels like a two-year-old. Vertigo much less. August 15, pain in left ear. August 18th, slight edema over left mastoid; pain down side of neck and into shoulder. August 21st, vertigo so great some one has to hold him up; pain in left side of neck increasing; neuritis of both optic nerves; auditory

canal much swollen; left middle ear full of granulations. Middle ear curetted and a large mass of granulation tissue removed. August 22d, pulse 60; temperature 99; sleeps most of the time; talks well when aroused; occular conjunctiva congested and very dry; cornea very dry; pulse 60; temperature 99.5; pupils dilated; will not take nourishment; some loss of grip in right hand. He complained for several days of great pain over left side of head; slight rigors. Dr. Dugan called to see him. It is now more difficult to arouse him. Some effort required to fix his attention and he does not recognize people well. An operation decided upon. Tumefaction of left side at neck very great, with great tenderness of apex of mastoid and along the jugular vein. I drilled into both mastoids, but found no pus. Dr. Dugan will give an account of his part of the operation.

Since the operation the patient has made an uninterrupted recovery, except a slight vertigo and deafness of left ear. No pain; no optic neuritis; vision perfect; inclined to fall to the left. The scalp wound healed readily. There was no hernia of the brain when opened. He recovered consciousness very quickly after the operation.

This case looked to me like one of pyemic thrombus of the lateral sinus. Mr. Chas. A. Ballance, of London, reports four cases of pyemic thrombi of the lateral sinus, in which he tied the internal jugular vein and curetted the sinus, with two recoveries.

DISCUSSION.

Dr. W. C. Dugan: The operation spoken of by Dr. Cheatham in his paper was done by the chisel; I used a chisel with a curved cutting edge and a mallet, instead of the trephine. I like it much better than the trephine, and you can cut down upon the lateral sinus exposing it without damage. After having exposed the lateral sinus and finding no pus with a hypodermic needle, we also explored the cerebrum and cerebellum, going very deep in the tissues, but were unable to find anything at all. If we had found in the lateral sinus a thrombus we would then have removed that, carefully dissecting out as far as the thrombus went. But finding no thrombus we stopped. I was very much surprised to find no evidence of brain trouble whatever in this case. This is the second case I have operated upon recently with the chisel, and am very much pleased with it. In regard to hemorrhage, if you should open the lateral sinus there is absolutely no danger in it. When operating on these cases we should always have a tampon of gauze ready so that when you get it open it can be tamponed at once. If proper attention is paid to asepsis during the progress of the work there will be no danger from septic trouble. You can cut down and perform an operation on the jugular using the tampon with as much success as in the lateral sinus.

Dr. A. M. Cartledge: How much brain in this case did you expose?

Dr. W. C. Dugan: A space about the size of a silver dollar.

Dr. H. H. Grant: Did you make any cut through the bone before applying the chisel?

Dr. W. C. Dugan: No. I think in craniectomy the chisel can certainly be used to good advantage. I have a patient now that I am going to operate on, and intend to use the chisel instead of the trephine. If the chisel is held at the angle of fifteen to twenty degrees there is no danger at all; no danger of doing damage to the meninges.

Dr. A. M. Cartledge: In this connection, I would state that the chisel is attracting considerable attention as a means of gaining access to the brain. I have never used it, but it does seem to me that the chisel can hardly take the place of the trephine in all cases, but it might be used to advantage in removing a section of bone between the trephine holes. I have used it in this way for years. To gain access to the brain I do not see any advantages in the chisel, and it seems to me there are disadvantages. In the first place I do not see why there is less danger of wounding the meninges. I think there is danger of injury to the dura in using the trephine and I believe there would be more danger in a slanting chisel and a mallet. The matter of sawdust is of no particular consequence as it can easily be washed away. In order to get a smooth, uniform opening, curetting is necessary by a chisel or Rongeur forceps. I have not used the chisel, as mentioned by Dr. Dugan, to take the

place of the trephine and must say I fail to see the especial advantage.

Dr. H. H. Grant: What width of chisel do you use?

Dr. W. C. Dugan: About a half inch.

Dr. A. M. Cartledge: I think that in fully one half of the cases which demand the use of the trephine, will be found one very common condition—that is, fracture of the inner table without fracture of the outer table. We all know how common it is in using the trephine to find an extensive fracture of the inner table with only a slight fracture or possibly no fracture of the outer table. I do not think there is any danger in using the trephine in these cases, but it seems to me that with the chisel there is danger of producing trauma to the brain. I do not see how the chisel can ever advantageously take the place of the trephine in such cases.

Dr. A. M. Vance: Do you think it advisable to use the trephine over the seat of fracture, or rather on one side?

Dr. A. M. Cartledge: You can never tell how much of the inner table is fractured until you cut down. Of course the trephine pin should be set on sound bone.

Dr. Wm. Vissman, (Visitor): The chisel is used altogether in Germany; they never think of using the trephine. The chisels vary in width from three-quarters down to a little over one-quarter of an inch. By using the chisel and chipping off the bone a little at a time, you can feel, in fact, you can see your way. The chisel is kept very sharp and in cases of depression, by setting it at a very acute angle as stated by Dr. Dugan, you can find this depression and, then if you should happen to slightly wound the brain, it is not going to do any great damage.

Dr. W. C. Dugan: In cases where you have a depression of the inner table the chisel should be set at a very acute angle and the bone chipped off, a little at a time, until you have entirely removed the external table, and then you have the internal table exposed. In other words you have removed the external table without coming in contact with the internal table at all. I operated a few days ago with the chisel and had excellent results. It can be used with as great a degree of delicacy as any instrument, cutting just where you wish to within a hundreth part of an inch.

STRICTURE OF THE URETHRA.

Dr. A. M. Vance: I saw a patient some time ago at LaGrange, a young man thirty-two years of age, who had stricture of the urethra and had been treated in Louisville by forcing a sound which was very large, evidently a false passage being produced, resulting in a perineal abscess which had been opened prior to my seeing him. I found an impermeable condition of the perineal stricture and a discharging sinus. I had a very short time between trains and did an external urethrotomy, of course without a guide and under great difficulties. The patient was never sufficiently under the influence of chloroform to get him in the proper position. A very large quantity of urine and pus was evacuated; the bladder was very much distended. I put in drainage and left the patient in charge of his physician. Six weeks afterward I went back to open up the anterior stricture and found it absolutely impossible to get anything through the anterior opening by the meatus. Under cocaine I worked some time with a small filiform but failed, then introduced a tenotome through the perineal opening and by this method the stricture was cut and I finally got in through the anterior urethra. The man made a very excellent recovery. One thing in the case that puzzled me very much was, after I had gotten the stricture relieved completely I could not get anything through the anterior portion of the urethra. There seemed to be a surplus of mucous membrane in the urethra that interfered with the introduction of the sound after I had put a large catheter through from behind. I never met with a case that seemed to have such a quantity of mucous membrane in the urethra.

DISCUSSION.

Dr. W. C. Dugan: I have operated several times recently without a guide with excellent success. I think if Dr. Vance had used a straight instrument instead of a curved one, he would not have had so much trouble.

Dr. A. M. Vance: At the first operation we were able to get a very fine filiform through, but could not get anything to go over it.

PELVIC DISEASE.

Dr. W. C. Dugan: I have a case that has puzzled me a great deal, and it has

also puzzled several others. The patient is a young woman upon whom a laparotomy was performed some time ago. The trouble seems to have been originally retroverted uterus. Shortly after marriage she developed considerable pelvic trouble; was under treatment for a while, and was finally operated upon and a cyst of the broad ligament removed. The ovaries and tubes at the time seemed to be in a normal condition and consequently were not removed. She does not seem to have improved very much from the operation and for the last four or five months has been growing gradually worse. Retroversion is so complete that it can be easily detected through the vagina, and she is now on the eve of another laparotomy in order to break up the adhesions and remove the tubes. She has intense pain all the time. Day before yesterday she had some rectal trouble and it occurred to me that it may be one of those reflex cases which would be promptly relieved by a simple operation. I introduced my finger into the rectum and the outlines of the uterus could be easily felt in Douglas' pouch; the ovary and tube on the left side pressed down upon the vaginal walls. I think the case is a perfectly clear one of pus tube of long standing. She has what is called "flushes," the skin becoming as red as the flush of scarlet fever; at this time her pulse is very rapid, running as high as 150 per minute and hardly perceptible, and really at times she is perfectly wild.

The tube on the left side is as large as your fore-finger. The uterus is retroverted and the tube seems to rest on the lower part of the uterus between it and the vagina.

DISCUSSION.

Dr. A. M. Cartledge: I believe that Dr. Dugan will find that while this tube and ovary are considerably enlarged it is probably the result of interference of the circulation. Operation is clearly indicated and I think the patient would be greatly benefitted.

ORIFICIAL SURGERY.

Dr. J. M. Matthews: Several years ago there was what was purported to be an anatomical discovery, as you all know, by a sect, or by some professional brothers who do not agree with our way of thinking; they discovered the so-called "pockets" or "papillæ" of the rectum. Now I would not occupy your time speaking of this matter, except that it has become a very serious one. The gentleman that pretended to have made this discovery has written a work and also gotten up a set of instruments which are used from one ocean to the other and which aid in putting the practice extensively into use. The practice is, or was, I should say, the cutting out of the so-called pockets or papillæ of the rectum; you will understand not for disease of the rectum only, but for any ailment that might affect the body. I know of one little child that was subjected to this treatment for asthma; I know of a gentleman who had his rectum, or a portion of it, excised for pthisis. I simply mention these two cases, but I could cite many others to prove how barbarous and how ridiculous the practice is. It is a surgical operation which anyone will see at a moment's glance is capably of doing a great deal of harm. For a good while they confined themselves to simply cutting out the pockets or papillæ, but now it seems they go further than this and excise a portion of the gut. Dr. Andrews, of Chicago, a very distinguished surgeon, was made aware of this fact and to him we are indebted for exposure of the treatment. He submitted the matter to a number of anatomists, among them the eminent teacher, Dr. Smith, as to whether these structures were abnormal or normal, each of whom stated that they were normal structures of the rectum, intended to assist in lubricating the feces. I submitted the same thing to anatomists of this city, Drs. Kelly, Bodine and Dugan, and each one of them agreed with Dr. Smith that they were normal structures. Therefore these men were cutting out structures natural to the parts, for any disease that a person might be suffering from, claiming that by some strange procedure they either produced the disease, or, if they did not produce it, the disease would be greatly benefitted by taking out these structures. As I say, for a time they contented themselves with the cutting out of these "pockets" and at one time I wrote an article calling the attention of the State Society to the fact that I had seen hemorrhage result, inflammation or proctitis excited, and that I had observed stricture of the gut as a sequence of such treatment. Now, they go further than formerly and resect a por-

tion of the gut, as much as an inch of the lower rectum. It is becoming so pronounced a thing that the profession of the United States are becoming aware of it, and are beginning to inquire about it. In this city the operation is being done rather extensively and, being in this line, I hear of these cases and often see them after such treatment. As I have already stated I have seen more than one stricture result from this practice. I have had several cases of ulceration of the gut resulting from the treatment. I would like to ask if the members of this society have heard anything about this wonderful (?) operation, or have met with any of the cases that have been subjected to this very unsurgical treatment. If it was not a serious matter it would be ludicrous and could scarcely be believed. I have in my possession a number of letters from physicians telling of the bad results of this practice.

DISCUSSION.

Dr. A. M. Vance: I happen to know a patient now, a young man, who consulted me on account of some trouble with his feet. Upon getting the history of the case I found he had a recent attack of gonorrhœa, and evidently was suffering from gonorrhœal rheumatism in a very aggravated form. I gave him a very blue prognosis as to the future progress of the trouble; I ordered potassium iodide and rest. This man was able to take very large doses of iodide of potassium with very little relief. He finally consulted a homeopathic surgeon who told him that his experience was that when a man was enabled to take such large doses of medicine without any effects there was some trouble with the outlets of his body, either with the urethra or rectum. He made an examination and found something wrong (?) with the rectum and excised a portion of it to cure gonorrhœal rheumatism. I have heard of a good many cases which have been operated upon by men who have been educated by the party in Chicago.

Dr. W. C. Dugan: Not many weeks ago a regular physician went from this city to Shelbyville, Ky., with the gentleman referred to by Drs. Matthews and Vance, to assist in an operation. About an inch of the lower rectum was excised and the gut brought down and stitched to the skin. I remember another patient that finally fell into my hands; the same man had treated him a long time for rheumatism, and failing to relieve him concluded there was some trouble with the alimentary canal, and performed an operation removing several pockets from his rectum.

Dr. Jas. S. Chenoweth: I can add one more case. A young lady eighteen years of age was operated upon in the manner indicated for an aggravated case of hysteria.

DOUBLE EXCISION OF THE KNEE.

Dr. A. M. Vance: I would like to mention a case I operated upon five weeks ago; a case of complete infantile paralysis of both lower extremities; a little boy nine years old, very small for his age. In the latter part of May last I excised his right knee at the Sts. Mary and Elizabeth Hospital; put the limb up in plaster of paris dressing with a spica bandage. The first dressing was removed in five weeks; when it was taken off, the wound was healed absolutely leaving a mere line without any evidence of suppuration. I will state that the operation is by a transverse incision about the lower part of the patella, removing the patella, taking off the cartilages of both the tibia and femur and putting them together without any wire or any suture, the plaster dressing serving to keep the bones in apposition. Five weeks ago I excised the second knee and dressed it in the same way; the dressings were removed yesterday and union had taken place without any trouble whatever. I will state that in the last operation no antiseptics were used, not even iodoform. I put one limb in slight flexion and the other in hyper-extension, thereby hoping that he would be able to balance himself better. I think this will give better results than if both were perfectly straight, both flexed or both in hyper-extension. This is the first time I have performed double excision of the knee where recovery has taken place.

Something Might be Made of It.

A correspondent of the *Confectioners' Journal* says that banana-juice makes a first class indelible ink. A spot on a white shirt from a dead ripe banana is marked forever, and the juice of bananas thoroughly decayed is a bright, clear carmine.

CORRESPONDENCE.

NEW YORK LETTER.*

New York surgeons are beginning to use the microscope extensively in order to ascertain how much and what adjoining tissue to remove when excising a malignant growth. The surgeon has a competent microscopist at hand, and as soon as he makes the first incision, a particle is removed, a frozen section made and examined. Should the operation be upon the breast, and carcinoma cells found in this section, the axillary glands are removed whether they be involved or not. Portions of tissue are removed at variable distances from the seat of the growth and examined, and this process is kept up until healthy tissue is reached; a section can be prepared and examined in ten minutes.

Stiles, of Edinburgh, has proposed a method of ascertaining the extent of involved tissue which gives good results. He takes a piece of suspected tissue and after washing, places it in a five per cent solution of nitric acid for ten minutes. The acid changes the normal tissue so that it appears semi-translucent while the diseased portions remain opaque. These methods of testing can be carried on while the operator is removing the main growth, so that before the closure of the wound he can remove all the parts found to be involved.

***

Resorcin is rapidly gaining popularity in the treatment of chronic gastritis. Prof. W. H. Thomson has recently reported the results of its trial in a series of seventy-eight cases taken from private practice; all of these cases presented pronounced gastric disorder. In fifty-one of these cases the drug yielded brilliant results. The cases of gastritis which it failed to relieve were due to a true organic derangement or to a neurotic element, such as hysteria, epilepsy, or insanity; in cases where the neurotic element was subsequent to and dependent upon the gastric trouble there was marked beneficial effect. In seventeen of the cases which were treated successfully there were symptoms of gastric ulcer, pain and vomiting.

In cases of what the professor terms railroad dyspepsia,—a gastritis found in men who do business in the city and live in the country, who eat breakfast and lunch with watch in hand, swallowing half masticated food, and riding to and from their homes in a smoking car—resorcin was found to give brilliant results.

It has been found also that while resorcin will not relieve a present attack of sick headache, it will prevent a subsequent one. In cases with an hereditary tendency to migraine the symptoms ceased as soon as an existing gastric trouble was relieved by the use of resorcin.

The drug comes to us in the form of a white, crystalline powder; soluble in ether, alcohol, oil and water, but not in chloroform. The dose is five grains, given well diluted, three times a day, half an hour after each meal.

***

A certain popular Jersey dairy has for some time been suspected of yielding tuberculous milk. The cows were of a high grade and because of the richness of the milk, it was sold only to wealthy New York families and at a high price. A couple of months ago one of the city health officers tested twenty-five specimens of milk from as many of the cows and in twelve of the specimens found tubercle bacilli. The animals were sentenced to death; to which proceeding the owner very naturally objected, and the milk continued to be sold.

About a month ago several cans of the milk were seized and specimens sent to Carnegie Laboratory for examination. A portion of one of the specimens was, under aseptic precautions, injected into a healthy guinea-pig, the family history of which showed no tuberculous taint, the animal itself and several generations of its ancestors having been reared in the laboratory.

Soon after its inoculation the guinea-pig became emaciated, gradually grew weaker and in two weeks died. The autopsy showed that the mesenteric and inguinal glands were enlarged and had cheesy centers, while in the liver and spleen were

*Special Correspondent to THE MEDICAL AND SURGICAL REPORTER.

numerous miliary tubercles, the centers of which had undergone cheesy degeneration. Sections were prepared from the spleen and liver and examined microscopically and tubercle bacilli found. The healthy lungs showed that the animal was not tuberculous previous to its inoculation. The diagnosis of death from acute miliary tuberculosis was made, and the Jersey dairy condemned.

NEW YORK STATE MEDICAL SOCIETY.*

ALBANY, Feb. 7th, 1893.

Dr. L. C. Gray, of New York, read a paper upon "The Relation of Genital Irritation, in the Male and Female, to Nervous and Mental Diseases."

A careful review of the history of genital irritation was first given, dating back to the belief of Hippocrates (which has been the source of the modern doctrines upon the subject) and this was followed by a discussion, in some detail, of the literature which sprang up after the publication of Stanley's paper, in 1833, as well as the further revival of the question by Sayre, in 1870.

Dr. Gray then went on to say that there was no proof that genital irritation was capable of causing any of the organic diseases of the nervous system, but that it might possibly act as an exciting or aggravating factor of certain lesser nervous diseases. In mental diseases, however, relief of genital irritation has proved, in his opinion, to be a much more valuable method of treatment than it seemed to be in the lesser nervous affections. He called attention, however, to the fact that there were two great classes of mental diseases—namely, the organic insanities and those which are known as the psychoneuroses—and that, so far as was yet known, it was only in the latter that relief of the genital irritation was of any value. He then gave the histories of several cases of insanity in which operations upon the female genitalia had given prompt and permanent relief. He was not, however, willing to believe that all the relief was due to the removal of the genital irritation, because simple etherization had sometimes worked almost as well, and, in one case, had done quite as much as the operation itself would have affected. He furthermore called attention to the fact that, if the operation upon the female genitalia was of any value at all in the relief of mental disease, it should only be done at a proper stage of convalescence. His conclusions were as follows:

1st. That there is no proof that genital irritation, in the male or female, can cause nervous or mental disease, except in the predisposed individual.

2nd. That the proof is not yet absolute that genital irritation can produce nervous or mental disease, even in the predisposed individual.

3rd. That there is undoubted proof that relief of genital disease, in the male or female, will often relieve certain nervous diseases, such as migraine, hysteria, epilepsy, simple nervousness and hallucinatory insanity.

*Special correspondent to THE MEDICAL AND SURGICAL REPORTER.

The Cold Bed.

If trustworthy statistics could be had of the number of person who die every year, or become permanently diseased from sleeping in damp or cold beds, they would probably be astonishing and appalling. It is a peril that besets traveling men, and if they are wise they will invariably insist on having their beds aired and dried, even at the risk of causing much trouble to their landlords. But, according to *Good Housekeeping,* it is a peril that resides also in the home, and the cold "spare room" has slain its thousands of hapless guests, and will go on with slaughter till people learn wisdom. Not only the guest, but the family often suffer the penalty of sleeping in cold rooms and chilling their bodies at a time when they need all their bodily heat, by getting between cold sheets. Even in summer a cold, damp bed will get in its deadly work. It is needless peril, and the neglect to provide dry rooms and beds has in it the elements of murder and suicide.—*Amer. Anal.*

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SATURDAY, FEBRUARY 11TH, 1893.

EDITORIAL.

THE EXAMINATION OF SPUTUM FOR TUBERCLE BACILLI.

The most practical use that has thus far been made of the discovery of the tubercle bacillus is, undoubtedly, its value in the diagnosis of pulmonary tuberculosis. The satisfactory results in the treatment of this disease that are constantly being reported, when the patients are placed under proper conditions in the beginning of the invasion of the bacilli, emphasize the importance of a correct and *early* diagnosis. It is well known that when the changes in the lung tissue have advanced to a sufficient extent to admit of a differentiation by physical signs or symptoms there is little hope of an ultimate recovery. The difficulty that has heretofore existed in recognizing tuberculosis in its incipient stage has compelled many a physician to allow his patients to pass beyond the reach of medical aid before the real nature of their disease was determined and an opportunity given then to test the virtue of a better climate or other curative agents which are proving so beneficial when applied at the proper time. It is to avoid this error that physicians should avail themselves of all the assistance that scientific research has developed for them.

The fact has been amply demonstrated that tubercle bacilli can be found, in most cases at least, in the sputum of patients suffering from pulmonary tuberculosis long before the nature of the disease would otherwise be suspected. As bronchitis is frequently the apparent means of preparing the lungs for this invasion of the tubercle bacilli it is self-evident that, in all cases of lung or bronchial disturbances that do not yield promptly to the usual treatment, the sputum should be examined in order to detect the bacilli at the earliest possible date if they should be present. It is in such cases only that the discovery of tubercle bacilli in the sputum is of practical or beneficial value.

To a few this may appear as an unnecessary precaution but the time has come in the building up of a better, more thorough and scientific system of medicine when a failure to diagnose the disease

in question (in the great proportion of cases at least,) at a time when restoration can with reason be expected, may be considered as little less than an unpardonable offence.

The examination of sputum by means of the methods set forth by Koch, Ehlrich and others required so much time that their application was quite beyond the possibility of the busy practitioner. The methods, however, have, within the last few years, been so much improved and simplified that it is hoped they may be employed whenever the discovery of tubercle bacilli will clear up a doubt in the diagnosis.

From among a large number of methods that have been published the one recommended by Dr. Gabbett appears to us the most practicable especially for sputum examination.

The sputum (the first expectorated in the morning is preferable) is spread in a very thin layer over the surface of a cover-glass and allowed to dry in the air. The cover-glass preparation (as it is now called) is passed, film upwards, three times through the flame of a spirit lamp or a Bunsen burner, in order to fix the film on the cover-glass so that it will not be lost during the subsequent treatment. It is then covered with a few drops of the staining fluid (which consists of Fuchsin 1 gram; Absolute Alcohol 10 cubic centimeters; 5 per cent. Carbolic Acid 100 cubic centimeters). The stain is allowed to act for about two minutes. The preparation is then rinsed in water and the film again covered with the decolorizing and counter-stain solution (Methylin blue 2 grains; 25 per cent. Sulphuric Acid 100 cubic centimeters) which is allowed to act from one to two minutes when it is again rinsed in water. It can be mounted in water and examined at once, or allowed to dry when it can be permanently mounted in balsam.

The tubercle bacilli should appear upon a microscopical examination as slender, more or less curved, rod-shaped bodies of a deep red color, the surrounding tissue cells and other bacteria having a blue color. For these solutions care must be taken to secure pure Fuchsin and Methyline-blue.

In the beginning of the invasion of the bacilli it is often impossible to detect their presence in cover-glass preparations made from a single specimen of sputum. As a large number of negative results do not positively affirm the absence of the disease, several specimens should be examined.

Biedert, (*Berl. Klin. Wochenschrift, 1886,* No. 42, p. 43, ibid 1891, No. 2, p. 31) has recommended a very excellent method for detecting the bacilli when they are present in very small numbers, which in the hands of a careful workman is much simpler than the repeated examination of cover-glass preparations made directly from the sputum. The method consists in mixing a considerable quantity of sputum with twice its volume of a 2 per cent. solution of caustic soda and boiling the mixture until it is perfectly fluid, after which it is placed in a conical dish and allowed to stand until a sediment is formed. The soda solution dissolves the tissue cells leaving the bacteria and elastic fibres, if any are present, to form deposits in the bottom of the glass. Upon decanting the supernatant liquid tubercle bacilli, otherwise difficult or impossible to find, can readily be discovered in properly stained cover-glass preparations made from the sediment. Although this process requires considerable time the advantages to be gained are obvious, and the importance of an early diagnosis over-balances the time and care that any of the methods require to detect the presence of the invading bacteria.

Perforation of the bowels occurs in about eight per cent. of the cases in typhoid fever.

TRANSLATIONS.

A CASE OF HYPERTROPHIED FLOATING SPLEEN; SPLINECTOMY WITH RECOVERY—A. C. LINDFORS.*

The case, that of a peasant of 20 years, was admitted into the hospital the 18th of January, 1892. Examination of the abdomen showed a large, solid, smooth tumor in the left side and was diagnosed as the spleen; it was remarkably movable, falling to the right of the abdomen as the patient changed her position to that side; its lower portion extended almost into the pelvic cavity, while the upper was broad and disappeared under the border of the left ribs. The length of the tumor was 29 cm., the breadth 17 cm., the girth, at the umbilical region, 95 cm. The patient complained of great pain in the abdomen, had noticed an increase in her size for five years. She was anemic, emaciated, had always been weak. Heart and kidneys healthy, some slight pulmonary catarrh from a former attack of influenza. Examination of the blood revealed one white blood corpuscle to 250 of the red.

She was desirous to have an operation performed. The author at first declined and tried the administration of tonics—quinine, arsenic and iron. No improvement following, laparo-splenectomy was performed on the 21st of February. Chloroform was used first to produce narcosis after which ether was substituted. Duration of the operation was two hours. An angular incision was made, its vertical portion corresponding to the external border of the left rectus—abdominis muscle, measuring from the umbilicus upwards 18 cm. The horizontal portion, at the upper extremity of the vertical and extending towards the left, measured 6 cm. There were some adhesions between the omentum and the tumor; these were ligated and severed. The entire spleen could be easily drawn out through this opening, the intestines being controlled by compresses.

Ligation of the ligamenta gastro and phrenico-linealia was done with silk in six sections, inclosing both end ligatures. There was but one row of ligatures. The tumor was grasped above by large compression forceps to prevent much hemorrhage, and then severed with the scissors; there was very little bleeding. The arteria and vena linealis were ligated with cat-gut. A small accessory spleen, about the size of an almond, was also extirpated; the stump was dropped; the abdominal wound sutured with two rows of sutures, the inner of cat-gut uniting the peritoneum, the outer of silk uniting the fascia muscle and skin. No shock, the patient retracted well; no fever during the first few days, later some febrile reaction with increase of pulse rate and pain in the left hypochondrium.

Removal of the suture on the 8th and 10th day; union by first intention; a diffuse resistance in the left side by palpation. On the night of the 8th of March and on the following day, the patient had several movements, blackish in color, mixed with pus, after which the temperature and pulse became normal. Complete and uninterrupted recovery followed. On the 18th of March examination of the blood showed the relation of one white corpuscle to 150 of the red. The quantity of hæmoglobin was 55° (Fleischl's Hämometer) in comparison to the 90 or 95° found in healthy women. With Hedin's Hæmatokrit the red blood corpuscles were found to be 32 per cent. in comparison to 42 per cent., and the white three to four per cent against the one. This shows a diminution in the quantity of hæmoglobin and the number of red blood corpuscles while there is an increase of the white. The spleen weighed 1155 grm., the blood included. It measured 25 cm.x15 cm.x7 cm. On the 14th of April the patient went home, very much improved. Was seen again on the 6th of June, when she reported that she was well, could work and had no more pains. The lymphatic glands around the thymus (?) were enlarged. This is the first case in Scandanavia of successful extirpation of the spleen. *Nord. Med. Archiv.* 1892.

*Translated for THE MEDICAL AND SURGICAL REPORTER, by Marie B. Werner. N. W M. D.

Gangrene of the Hand Consecutive to Influenza.†

M. Roland has published in *La Rev. Me'd. de la Franche-Comte*, an interesting observation of gangrene of the hand due to an endarteritis consequent upon la grippe, which was followed by death. The patient was a smith 31 years of age, very robust, without antecedent trouble of any sort, who had a grave attack of influenza. Scarcely recovered, he resumed his profession, and performed excessive work with his right hand. Following this fatigue he was attached with lively pains which were at first taken for rheumatism. Finally, however, the hand became white, livid; the pulsations of the radial and even of the brachial at the fold of the elbow disappeared; finally, the fingers and the lower half of the hand assumed the black coloration of gangrene of arterial origin, which is often seen in the lower extremities, but which is quite exceptional in the upper extemities.

In the course of time a line of demarcation formed between the dead and living tissues, and the patient seemed about to recover when his general state became grave, the right foot became involved in its turn, and death followed.

Gangrene consecutive to influenza has already been noted, but these gangrenes, due generally to an arterial embolus have never been noticed in the hand. It is on this ground that M. Roland's case merits reporting.—*Le. Bulletin Medical*, Jan. 8, 1893.

Some Remarks on the Treatment of Pain and Insomnia.†

According to Dourdoufi, pain and insomnia are morbid phenomena of much importance especially from the point of view of their practical signification. They exist in the clinical picture of a large number of diseases both acute and chronic. In the chronic diseases the issue of the pathological process depends largely upon the intensity of these symptoms and the possibility of limiting their deleterious influence. A rational medication of pain and insomnia, based upon the recognition of their pathogeny facilitates the rôle of the physician in his struggle with the diseases. Dourdoufi calls attention to a simple method of treating pain in general and cephalgia especially.

1. In the case of cephalgia, if it does not depend upon organic lesions of the nervous system, we have in *percussion with the fingers or with the finger* upon the parts which are the seat of the pain a simple and sure method of causing the pain to disappear almost immediately. In the examination of a patient who complained of atrocious pain in the head, Dourdoufi practiced percussion of the skull with the finger for the purpose of clearing up the nature of the cephalgia. This examination was followed in two or three minutes by an entire disappearance of the cephalgia. The experiment was repeated in a number of instances and always with the same positive result. The percussion may be made with one or several fingers, taking the precaution not to occasion disagreeable sensations to the patient. This may be accomplished by controlling the intensity of the percussion according to the sensitiveness of the patient, and gradually increasing the force of the blows. As a general rule the percussion should never be too intense. This method ameliorates and even causes an entire disappearance of every form of headache of a functual nature, without organic lesion; hemicrania, and headaches of neurasthenic, hysterical and anemic patients.

The same method has been applied to the muscular pains of neurasthenics with the same positive result. Percussion with the fingers for three to five minutes has caused the muscular pains to disappear in cases where the application of electricity (galvanization and franklinization) and massage have remained ineffectual.

2. Dourdoufi has also obtained very satisfactory results in the treatment of *rebellious insomnia* by another therapeutic method. A young man thirty years of age who had been tortured for several months by an insomnia for which sulphonal (2 grammes) and chloral (2-3 grammes) had been used without effect, applied to him. He advised his patient to take, after retiring, some cold milk (previously boiled,) three teacupfuls, and if possible more. This was taken every evening during the first hour and a half after retiring, the amount varying from three to six cupfuls. The result was very good, a calm sleep following, which lasted on an average eight hours. It is worth while to note that this result was obtained in an individual in whom sulphonal and chloral had not produced the slightest somnolence.—*Le Med. Mod.* Jan. 7, 1893.

† Translated for THE MEDICAL AND SURGICAL REPORTER, by W. A. N. Dorland, M. D.

Contributions to the Diagnosis of Cancer of the Pancreas by Drs. E. Galvagni and G. Bassi.*

Cancer of the pancreas is always difficult of diagnosis, although it is known to occur more often than was formerly supposed. The text-books give very little enlightenment on this subject. Galvagni and Bassi had an opportunity of observing four cases of cancer of the pancreas during life and after death. They present the result of their studies to the profession. This disease may or may not be accompanied by jaundice, which when present is differentiated from the ordinary icterus by the presence of diarrhœa and sub-normal temperature. Its onset is usually sudden, its course progressive with no remission. The gall bladder is enormously dilated, but the liver is not enlarged. In consideration of the short duration of the disease the diagnosis in the presence of jaundice will not be so difficult. On the other hand in those cases in which jaundice is absent diagnosis can be made only by exclusion; it being necessary to exclude cancer of the liver or stomach. Jaundice occurs in about 75 per cent. as one of the first symptoms of cancer of the pancreas, and particularly when it locates itself near the head of the organ. Pain and vomiting are not a constant symptom. In most cases there is no loss of appetite and dyspeptic symptoms are absent. Palpation reveals, in about two-thirds of the cases, a small tumor in the right epigastric region between the liver and umbilicus, not always sharply defined. The most important and constant symptom is the emaciation which takes place with remarkable rapidity.—(*Rivista clin. e terapeut.* No. 11, 1891.)

A Case of Echinococcos in the Throat.*

P. Güterbock reports a case of a patient nineteen years old, who presented about the middle of April, '92, a swelling in the left lower angle of the jaw which was reddened and immovable. Thinking it to be a suppurating gland Güterbock made an incision and discovered a echinococcos cyst which extended into the substance of the sterno-cleido mastoid muscle: extirpation—good recovery. He has looked up the literature of this subject and found twenty-six cases reported, nine of which were located in the thyroid gland. They are usually met with in young people, more often in females and the left side is the one usually attacked. It is easily mistaken for an abscess. The symptoms of these twenty-six cases have been mostly negative.

E. von Bergmann has called attention, as characteristics of this affection, to its rapid growth and its location, *i. e.*, the external border of the sterno-cleido mastoid muscle. Therapeutically little is known of three of the twenty-six cases. The exploratory incision has been rarely used; when decided upon it usually ended in complete extirpation. The incision was made in fourteen cases, ten recovered, three died of hemorrhage and the result of one case is unknown.

The text-books usually teach that it is dangerous to extirpate the capsule of the echinococcos owing to its intimate connection with surrounding tissues and advise leaving it *in situ*. This, however, has given rise to many complications in the course of recovery.

In six cases, in which the operation was completed by thorough extirpation of the capsule, rapid and complete recovery took place. In four cases puncture was resorted to with injection and drainage. Among the twenty-four operated cases there were eighteen recoveries, three deaths, and in three the results were not known.—(*Deut. Med. Zeit.*, No. 6, 1893.)

Trional as a Hypnotic.*

Boettiger has used trional in many nervous cases, also among the insane, and found that it is a remedy which possesses decided hypnotic and quieting properties while it does not leave any unpleasant effects after its use if given, in moderate doses (the maximum 3 g.) Sleep usually sets in rapidly (fifteen minutes.) In uncomplicated cases of insomnia one grain, or the most two, is usually all that is necessary. In cases of great irritation small doses given during the day will often produce the desired effect. It does not act as an anodyne. It is ineffectual in cases of alcoholic delirium.—(*Ber. Klin. Wochen*, XXIX., 42, 1892.

*Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

*Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

A Case of Tuberculosis of the Intestines Accompanied With Black Urine.*

Dr. Pollak, of Budapest, reports a case: A child of ten years, from healthy family, was taken ill in Jan. 1891, with pain in the abdomen and profuse diarrhœa which lasted three and a half months. There was also present fever and slight cough. The patient became anemic and emaciated, and the urine throughout this illness was always dark colored. The abdominal cavity seemed to contain fluid, and the lower extremities were œdematous; temperature normal. The urine presented strange characteristics; when freshly voided it was usually clear, of a yellowish brown and sometimes dark brown color; if exposed to the air for a time it became darker, the upper portion turning black after twenty-four honrs and becoming more dense as a longer time elapsed. The amount voided during the twenty-four hours ranged between 100 to 300 ccm. The specific gravity was 1,008 to 1,030; the reaction was usually alkaline, rarely acid; neither albumen, pus, blood, biliary coloring matter, sugar or asceton could be found. Indican was always present in large quantities if examined in the fresh state, or after longer standing urobilin was only present in traces. The patient rapidly sank and died and the section revealed numerous chronic tubercular abscesses along the entire ileum, and the entire peritoneum was studded with tubercles. No melanotic swelling could be found. This condition of the urine is rarely met with, especially in the absence of melanotic tumors. It has never been met with in tuberculosis of the intestines, but has been observed by Senator in tubercular diseases of the other organs, notably a case of tuberculosis of the lungs and one of the peritoneum.—(*Deut. Med. Zeit.*, *No.* 6, 1893.)

The Use of Anæsthetics in Obstetrics.*

Dührssen speaks of the value of narcosis in obstetrical operations and states that it can be used without the aid of another physician. His method is to chloroform the patient deeply after which the operator proceeds with the operation in hand, allowing only occasionally about two drops of chloroform when the patient reacts.

Aside from the relief produced by narcosis in painful labor, it often aids very materially in making a correct diagnosis; for instance, it is sometimes difficult to decide between a transverse and a posterior parietal presentation. Its principal use, however, is found in cases of version or in the removal of adherent placentæ after abortions, the removal of tumors in the lower pelvis or breach presentation when it becomes necessary to deliver by the feet.

Dührssen, however, recommends care in septic cases and considers it contra-indicated in eclampsia for the purpose of controlling the attacks. It should only be used in these cases, to aid prompt delivery and should be deep and thorough for that purpose.—*Ber. Klin. Wochen*, '92.

Contributions to the Surgical Treatment of Stenosis of the Pylorus.*

F. Colzi presents three new cases of pyloroplasty performed after the method of Heineke–Mikulicz; all recovered. The stenosis was produced in the first case by an abscess. The second followed what the author believes to have been a gastropyloritis hyperplastica. Clinically it appears to have had about the same symptoms as the stenosis produced by carcinoma. The third, followed the caustic action of sulphuric acid taken by accident.

The author further reports a case of pyloric stenosis produced by adhesions between the pylorus and the liver which followed an attack of pericholecystitis. The operation consisted in releasing the adhesions and was followed by complete recovery.

A gastro-enterostomy for carcinoma of the pylorus. The patient died on the fourth day owing to persistent vomiting of biliary matter.

A section proved that the vomiting was induced by a contraction of the proximal loop of the intestine, behind which larger masses of fluid matter collected, which by over-distention would partially overcome the stricture and entering the stomach at once induced vomiting.

The only method by which such a complication could be overcome seemed to the author's mind to be an additional operation of entero-anastomosis.—*Central. f. Chir.*, No. 50.

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*Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

ABSTRACTS.

THE RELATION OF PELVIC DISEASE AND PSYCHICAL DISTURBANCES IN WOMEN.

Dr. George H. Rohé, Superintendent of the Maryland Hospital for the Insane:

The opening remark of this most interesting article is worthy of profound thought: "Physiology as well as daily observation teaches the interdependence of mental and bodily functions," and while he states that, "the brain is the organ through which the phenomena of mental action is displayed and must necessarily be the immediate seat of disturbances of nutrition as causative of disorders of function, there can be little doubt that in many cases some more remote cause is present in the physical organism, to which the disturbances in the brain function are traceable.

The depressing effect of disorders of digestion and entire gastro-intestinal tract upon the mental state, he proves by his own observations and the experience of other authors and alludes to Clouston "who made the observation that delusions of intestinal obstruction so frequent in melancholia may after all be dependent upon some physical condition hindering the passage of the contents of the gastro-intestinal canal; in other words they may not be delusions at all." A recent autopsy in the Maryland Hospital for the Insane showed the truth of this observation. The case was one of profounded hypochondriacal melancholia, which had before admission been diagnosticated as cancer of the stomach, had required feeding for his entire period of residence (three years); there was constant complaint of obstruction of the bowels, although no abnormality could be made out on physical examination. After death the descending colon was found constricted for a distance of six inches to a diameter of not over half an inch."

The author furthermore calls attention to the fact that, "The mental disturbances—actual insanity, not merely febrile delirium—accompanying or following infectious maladies, structural or nutritional diseases of the eye, ear, heart, lungs and kidneys are generally recognized. Indeed some of the highest authorities on mental diseases, as Esquirol and Guislain emphasize the overwhelming influence of the genital organs, especially in women, in the production of insanity. Strangely, however, while physiologists recognize and impress the great influence of the normal sexual function upon the mental state of the individual, alienists, generally, seem disposed to deny any influence to these organs when in a morbid condition. The fact cannot be denied that at the menstrual period all psychical disturbances are intensified. Maniacs become more noisy and disturbed, epileptics have more frequent and more violent attacks, and melancholiacs are more disposed to depression and suicide at that time. The author, knowing by observation the above to be true, finds it very irrational that the influence of abnormal conditions of the genital organs upon psychical processes should be so vehemently denied. He quotes from Tuke who says that, "insanity is not a disease. It is a symptom produced by many morbid conditions which may arise primarily in the brain, or secondarily, from depraved conditions of the general system." Indeed this same authority utters this strong reproach to the alienists. "No one will venture to say that the foundations of general and so-called psychiatric medicine are equally firm or established on similar principles. No, the general conception of insanity is on the same level as that of dropsy a century ago; and its varieties — mania, melancholia and dementia—are not one whit more pathalogically definite than the anasarca, ascites and hydrothorax of that period, and they must remain so till such time as the subject is studied by the same lights as those which enabled the anatomist and pathologist to break up the generic term dropsy into a series of widely different conditions possessing a common symptom.

Following out this line of thought and reasoning, and stimulated by a few others who have written upon and discussed the subject, Dr. Rohé began to work out this humanitarian problem, his position no

doubt giving him the opportunity of making a careful selection, backed up by a thorough knowledge of former history and habits of each patient.

We can do no better than to quote his own words, regarding his opinion of gynecological treatment, while we heartily endorse them. "There can be little doubt that the frequent exposure of the patient and introduction of the speculum, the passage of a sound and attempted forcible reposition of a retroverted and adherent uterus, the introduction of a pessary, or perhaps, worst of all, the practice of that form of vicarious masturbation, known as pelvic massage, would lead to results the reverse of beneficial in the insane, as they have resulted in sane women.

Modern surgery and gynecology, however, offer and produce positive results, principal of which is the relief of suffering."

The author then explains in detail the care and preparation of each patient previous to examination, *i. e.* baths, free purgation and douches—and in order to make the examinatian thorough and satisfactory an anæsthetic was employed. Imbeciles and dements were not examined though he feels confident that he would even here meet with a large proportion suffering from pelvic disease. Of the 35 examined, 26 or 74.3 per cent showed some evidence of pelvic disease or abnormality.

In fact Dr. Rohe feels confident that at least 50 per cent. of the women in the Maryland Hospital for the Insane would show lesions of the genital organs if all were thoroughly examined. In some unexamined cases an autopsy had shown unsuspected pelvic disease. Should not this be an incentive to the heads of other institutions to make similar investigations. The total number of cases operated upon was 18, six of which were suffering from melancholia, one of simple mania, four of puerperal mania, one hysterical mania, two periodic mania, one hystero-epilepsy with mania, and three epilepsy.

Of the 6 cases of melancholia the doctor reports all have recovered from the operation and some improvement can be seen in their mental condition. Of the case of simple mania, he states that there seems to be decided connection between the uterine displacement and the mental aberration. The patient since the operation has shown decided improvement in her mental condition, although not well enough to be discharged from the hospital.

Of the four puerperal mania, he reports that in all there were lesions of the pelvic viscera sufficient to demand the operation. The operations were followed by prompt and complete recovery and the conclusions, which the author has arrived at in this connection we take pleasure in quoting.

1. Puerperal insanity is, in at least the large majority of cases, an infection psychosis. 2. Without rejecting the influence of other factors, such as heredity anemia, exhaustion, mental shock, and distress, careful observation will show that few cases of puerperal insanity occur without preceding or coincident puerperal infection.

The reasons for this opinion may be briefly summed up as follows:

1. Puerperal insanity occurs in the great majority of cases within the first ten days, after delivery, about one-half in the first five days—the same period during which puerperal infection usually occurs.

2. It is usually accompanied by elevation of temperature and other evidences of febrile disturbances.

3. The clinical form in which puerperal insanity manifests itself is, in the majority of cases, that of acute, delirious or confessional mania. Depressive states are rare except as secondary form. In other words, the most frequent condition is one most closely resembling febrile delirium.

4. The death rate is much higher than in simple mania. Death occurs from exhaustion, usually with high temperature and rapid pulse.

5. Post mortem examinations, though apparently infrequent in these cases, have shown grave involvement of the pelvic viscera.

6. Examinations of the pelvic organs during life show lacerations of the perineum and cervix uteri (facile channels of infection in the puerperal woman.) As secondary conditions are found intrapelvic (peritoneal) inflammations, and consequent abnormal locations, fixations, and congestions of the uterus, tubes, and ovaries.

7. The results of operations seem to show that removal of local sources of irritation increases the chance of recovery from the mental disease."

To sustain those propositions he quotes from Tuke's "Dictionary of Psychologi-

cal Medicine." "There is strong reason for believing that in purperal insanity a considerable proportion of cases is due to toxic influences.

It must be remembered that although a woman may become insane during the puerperal period, her case need not be referable primarily to child-birth. Mental symptoms may be, in point of fact, idiopathic—*i e.*, the result of so called normal causes—the effect of which, culminating at the birth of her child, show themselves some three weeks or a month later by an attack of simple mania or melancholia. But the violent delirious mania which is apt to develop within fifteen days after delivery has all the aspect of being due to toxic influence. Its sudden inception, delirious character, rapid development, inflammatory complications, and tendency to death are eminently suggestive of septic origin. Such cases rarely present themselves later than a fortnight after childbirth (the period during which septic changes go on in the uterus,) and more frequently within ten days. Absorption from the uterine surface of disorganized material and blood, acting on a system which has been already subject to considerable drain, exercises its influence on the most highly organized cells, and acute, violent mania, temporary in character, but followed by prolonged brain weakness, is the result."

After giving each case operated upon in detail in which with very few exceptions changes for mental improvement have been noticed, the author gives the following conclusions. "In the first place, I believe the facts recorded demonstrate that there is a fruitful field for gynecological work among insane women."

Secondly, that this work is as practicable and can be persued with as much success in an insane hospital as elsewhere.

Thirdly, that the results obtained not only encourage us to continue, but require us in the name of science and humanity to give to an insane woman the chance ot relief from diseases of the ovaries and uterus that a sane woman has." —*Abstracted from the 95th Annual Report of the Maryland Hospital for the Insane.*

THE LIBRARY TABLE.

Text-Book of Ophthalmology. By Dr. Ernest Fuchs, Professor of Ophthalmology, University of Vienna. Authorized translation from the second enlarged and improved German edition, by A. Duane, M. D., Assist. Surg., New York Opthalmic and Aural Institute. With numerous illustrations. New York: D. Appleton Company, 1892.

So many new works upon Ophthalmology have recently been issued that there would seem scarcely room for another. But when we carefully peruse the book before us it becomes evident that many of the remarks and illustrations contained in it, have been reproduced in some of the other recently published works. This must certainly be taken as direct testimony to the value and appreciation of Prof. Fuchs's work, which may be characterized as comprehensive, scientific and authoritative. It is divided into four parts, with an appendix. The first part describes the methods of testing the eye. The second, containing fifteen chapters, treats of the various diseases of the eye and its muscles, the eyelids and the orbit. Part three discusses anomalies of refraction and accommodation. Part four is devoted to operations. The appendix which is added by the translator contains wood cuts of instruments.

The chapter upon the Ophthalmoscope would have been more complete if graphic representations had been given of the surgeon in the act of examining a patient by means of the direct and indirect methods, as well as an illustration of examing by focal illumination; and the wood cut of the normal fundus oculi on page 9 represents the optic papilla as oval longitudinally, simulating the ophthalmoscopic appearance of the optic disc in an astigmatic eye.

Each chapter on diseases of the eye begins with a description of the anatomy and physiology of the structure under consideration. To some readers this arrangement may be more serviceable than would be an introductory complete description of the anatomy and physiology of the eye and its appendages although to us, the latter plan seems preferable. The various diseases of the eye and their treatments, are very clearly and thoroughly described, and the chapters on disease of the iris and ciliary body, glaucoma and cataract are especially worthy of mention. Professor Fuchs speaks with no uncertain sound as to iridectomy performed as early as possible as the treatment *par excellence* of glaucoma. He emphasizes his view with the authority born of experience. In this section some etymological changes in words are noticeable. For instance, the word generally, but erroneously, spelled *choroid* is printed chorioid (page 245), again *myosis* is written *miosis*, (page 257.)

The chapters on anomalies of refraction and accommodation, the disturbances of mobility of the eye and their correction, present nothing for special comment save that it is

refreshing to find here, as well as in other parts of the work, due credit accorded to the labors of the masters of modern ophthalmology, Donders, Von Græfe, Arlt, etc.,—references to whom are very sparingly made in recent American works upon the subject.

A great deal of historical information is scattered throughout this work and adds much to the interest in reading it.

The operations upon the eye are very faithfully described and, in the appendix, illustrations of the various instruments required are shown. More representations of the *methods* of using them would, we think, have added greatly to the usefulness of the work.

As the shadow test (Retinoscopy) is now being so generally studied it is disappointing to find the description of it so incomplete, and noticeably there is no reference to the use of the plane mirror. Credit is due to the translator for the manner in which he has presented Professor Fuchs' work to the English speaking public.

Handbook of Massage. By Dr. Emil Kleen, Practicing Physician in Carlsbad, Bohemia. Authorized Translation from the Swedish, by Edward M. Hartwell, M. D., Ph. D. Philadelphia: P. Blakiston, Son & Co., 1892.

A favorable impression of Kleen's Massage is formed the instant that the *Introduction to the American Edition* is read, for it is written by Dr. S. Weir Mitchell, who is a reliable observer and a champion of Massage.

This book will meet with a ready acceptance since, as Dr. Mitchell has said, "We needed a study of this theraputic aid from a higher point of view than that of the mere masseur, who is too apt to see in massage an agent applicable to all diseases. Those who have wearily retired from the mystery, or excessive detail or too positive conclusions with which the professional masseur, when writing of massage, surrounds and complicates a simple matter, will I am sure, be pleased to find it considered without excess and with clear, good sense." Those who desire to learn what is at present known of massage, its uses, methods and effects, can find here what they are not likely to get in any other work on this subject.

Kleen's book, will be of great value to the practicing physician, for it is free from all specialistic narrowness and enthusiasm for massage; does not run into extravagance in setting up indications for its use, but assigns to it a place among other adjuvant measures of therapy.

Dr. Hartwell has done his work in an excellent manner. He has used rare discrimination in his introduction of illustrations. The presswork, paper and binding are commendable.

Fermentation, Infection and Immunity. A new theory of these Processes, which Unifies their Primary Causation and Places the Explanation of their Phenomena in Chemistry, Biology, and the Dynamics of Molecular Physics. By J. W. McLaughlin, M. D., Austin, Texas. Austin, Texas: Eugene Von Bœckmann, Publisher, 1892.

This subject which had its birth in an article on "The Etiology of Acute Infectious Diseases" which appeared in the *Texas Med. Journal* 1887, reappeared in 1890 before the Texas State Medical Association in a new dress, "An Explanation of the Phenomena of Immunity and Biological Laws." But the paper the author states was seriously crippled by its brevity, and he found it impossible to intelligibly and fully include a subject so complex and novel within the compass of a society essay. Hence its appearance in book form. The aim and purpose of the author is to show that the accepted principles of molecular physics, and those of chemistry and biology, if supplemented by legitimate deductions from them, are amply sufficient to account for all the known phenomena of these processes, and also, to explain their relationship and intimate nature. The theory is as new as it is novel and the future will decide as to its accuracy.

Deutches Archiv fur Klinische Medicin. Edited by Dr. H. V. Ziemssen and F. A. V. Zenker. Band 50, containing 530 pages with 2 portraits, 13 tables and 14 plates. Published by F. C. W. Vogel, Leipsig; December 1892.

The Archiv, comprising as it does, over twenty-six essays upon important subjects by prominent authors, will bear with profit close study in detail.

The introductory chapter presents a retrospect of the objects and work accomplished from 1865 to 1892, by a band of earnest and scientific workers interested in the progress of clinical medicine. It shows, that the prime motive was to encourage competitive, practical scientific studies of clinical medicine in the various schools of Europe, and to have the results published in book form as affording greater opportunity to the student than is allowed by the ordinary text book. That the original object has been, and is carried out can be seen by careful reading of the articles, all of which show earnest study and thought. We shall, as circumstances permit, present some of the most interesting and practical papers as abstracts.

CURRENT LITERATURE REVIEWED.

THE CHICAGO MEDICAL JOURNAL

For January contains an article on "Abscission of the Tonsil" by Dr. W. E. Casselbury. The indications for the operation are clearly shown together with its dangers. The technique of the operation is discussed and there are drawings of the author's tonsilotome and a special form of vulsellum forceps for grasping the tonsil, thus doing away

with the fork of the ordinary instrument, which the author regards as unsatisfactory.

There is also a paper by Dr. G. Frank Lydston on

Urethral Fever.

The causation of this obscure disease is due, according to the author to toxæmia "dependent on [a] imperfect elimination of the products of retrograde tissue metamorphosis; [b] to a greater or less degree of absorption of morbific materials produced by chronic inflammations and bacterial evolution, and the decomposition of residual urine behind the site of obstruction, i. e., pseudo-alkaloidal germ products." The various other theories as to its causation are reviewed in a somewhat lengthy article.

The other papers in the journal are: "The Relation of Nephritis to certain Cardiopathies," by Dr. Joseph M. Patton; "Is Medicine a Science?" by Dr. Edwin J. Kuh; and the report of a "Case of Exophthalmos associated with Nephritis," with a photograph of the patient, by Dr. Harold N. Moyer.

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES FOR FEBRUARY.

The Cholera in Hamburg in 1892

is the title of a paper by Dr. F. Reiche, translated by Dr. A. A. Eshner. The source of the epidemic is discussed and thought to be the river Elbe, into which the sewerage of the city empties and from which the drinking water is taken. The history of the outbreak is carefully reviewed and there is a table of the daily number of cases with the daily number of deaths. The treatment as practised by the author at the New General Hospital is described, as are also the post-mortem appearances observed.

W. Soltau Fenwick, M. D., of London and Walker Overend contribute a paper on "The Production of the First Cardiac Sound in Mitral Stenosis." According to the authors the snap-like first sound is caused by the closure and tightening of the tricuspid valve. The reasons for this belief and the other theories regarding the origin of this sound are ably stated in the paper.

Dr. B. A. Randall, in a paper on

Pain in Otitis Media,

urges that, in any case of earache, the entire auditory tract be investigated with all possible stringency and the exact seat and meaning of the pain learned, as the preliminary to treatment. The careful inflation of the middle ear is advocated only after a thorough cleansing of the nares and pharynx; and for the relief of the aural condition he considers hot syringing as the best single measure. The article is short, pointed, and well worth the reading of the general practitioner who is so often called on to relieve the tortures of earache.

Dr. Frederick Peterson presents the claims of the "water treatment" in an article on "Hydrotherapy in the Treatment of Nervous and Mental Diseases." The general laws of for its administration, its indications and methods of application are fully set forth. Its applicability in insane patients receives special attention.

Drs. J. William White and A. C. Wood continue their contribution on

Methods and Results in Cases of Nepolasms, Vesical Calculi and Diseases of the Bones and Joints.

The report includes malignant tumors of the breast, sarcomata in the parotid gland, in the neck and in the foot; also cases of carcinomata and lipomata. In the treatment of vesical calculi, litholapaxy is advised in all suitable cases. A photograph of a stone is given which was too large to be grasped by the lithotrite and had to be removed by the high operation. The weight was nine and one-half ounces. Under diseases of the bones, cases of necrosis are reported and the treatment of various fractures and dislocations described. Diseases of the rectum are included in this report, hemorrhoids being treated by one of the three methods, clamp and cautery, ligation or excision, and the objections to each method tersely stated. Strictures of the urethra are discussed, the diagnosis and treatment described. As has been said in the notice of the first part of this paper, the cases reported have occurred in the service of Dr. White at the University Hospital. The paper is illustrated with photographs of patients and specimens removed.

Other papers in this month's journal are the report of a "Case of Congenital Elephantiasis of the Scalp," with a photograph of the patient, by Dr. Pedro S. De Magalhaes, of Rio Janeiro; and "The Diagnostic Significance of the Venous and Arterial Murmurs of the Neck," by Dr. James K. Crook.

THE NEW YORK MEDICAL JOURNAL

for January 21st, contains a very valuable paper by Dr. George M. Sternberg on

Disinfection at Quarantine Stations, Especially Against Cholera.

The methods used in New York in the late successful fight against the importation of cholera are fully described. The author considers dessication the best mode of killing the germs of cholera. Disinfection of the mails and merchandise is declared unnecessary, from a bacteriological standpoint, if the merchandise was clean and dry when received on shipboard and if it arrives in the same condition. The free exposure of the articles in the disinfecting chamber is of paramount importance, as neither hot air or steam penetrate bundles of clothing readily. "To the writer it appears that disinfection would be accomplished by the free exposure of woolen garments, blankets, etc., in a hot-air drying oven or chamber to a temperature of 80° to 100° C. for half an hour or more, being careful that no two articles were piled one upon another." Disinfection of clothing by steam on board ship is urged. The paper is well worth attention at this time when there is every prospect of an attempted invasion of our cities during the coming summer.

Dr. Charles Phelps contributes a paper (continued from the previous number of the journal) on "A Clinico-pathological Study of Injuries of the Head, with special reference to Lesions of the Brain Substance." A large number of fractures of the skull are reported, detailing the symptoms during life and the pathological conditions observed at the post-mortem.

Dr. William J. Fluhrer describes an "Improved Technique in the Operation of External Urethrotomy," illustrating his paper with cuts of the instruments used and the method of using them.

Other papers are: "The Value of Sprays in the Treatment of Catarrhal Affections of the Upper Air Passages," by Dr. Clarence C. Rice, and "Tumors of the Orbit and Neighboring Cavities," by Dr. Charles Stedman Bull.

In the issue of the same journal for January 28th, Dr. William A. Hammond discusses

Certain Organic Extracts,

particularly the far-famed Brown-Sequard Elixir, which the author claims, possesses decided virtues. For brain-tired people he would inject a concentrated extract of the brain of a healthy animal. These extracts can also be given by the mouth, but must be dropped upon the tongue, and so absorbed in the system without coming in contact with the gastric juice which destroys their power. The paper includes the report of cases where the author claims the patients were benefitted by the use of these extracts.

Dr. Charles Phelps concludes his exhaustive paper on "A Clinico-pathological Study of Injuries of the Head," the subjects considered being, Thrombosis of the Sinuses, Lacerations of the Brain, Contusion, Contre Coup, Concussion and Compression. The subject is entered into minutely and the diagnosis and treatment fully discussed.

Other papers in this issue are: "The After Results of Nasal Cauterization," by Dr. Thomas Amory De Blois; "A Case of Suppurating Ethmoiditis," by Dr. J. H. Bryan. The number concludes with some remarks by Dr. Ellsworth Eliot presented at a meeting of the managers of the New York Society for the Relief of Widows and Orphans of Medical Men.

SCRIBNER'S MAGAZINE.

The quite interesting sketch which forms the sixth instalment of the "Stories of a Western Town," is among the most entertaining of the contents of the February *Scribner's*. Several well illustrated articles of travel and matters incident thereto, attract attention. The "Personal Recollections of Charles Sumner" is a valuable paper. Literature of this sort has more than a transient value, and should be treated accordingly. Mr. Sumner was a strong figure among American Statesmen and in the politics of the day in which he lived, and recollections of his time are more than ordinary personal reminiscences—they are history.

THE DUBLIN JOURNAL OF MEDICAL SCIENCE.

The January issue of *The Dublin Journal* comes to us with several interesting papers. Dr. Joseph O'Carroll has a communication on "*Saturnine Encephalopathy*" of which fuller mention is made elsewhere.

Dr. Henry O'Neill in his article on the

Treatment of Large Arterio-venous Naevi

considers excision more suitable than ligation or electolysis, because—

1. All the nævoid tissue can be more rapidly and thoroughly removed, so that there is not likely to be a re-appearance of the nævus.
2. There is very slight hemorrhage, and it can be easily prevented or arrested by forci-pressure forceps and ligatures.
3. There is no slough left in the wound.
4. The wound heals rapidly. The same writer has as a second division of his subject the

Treatment of Epithelioma of the Lip by Excision, etc.

In presenting his cases of Epithelioma, five in number, he offers as his method in the treatment of this affection of the lower lip, where it has lasted over two months and where the glands can be felt beneath the lower border of the jaw and in front of the submaxillary gland, first to remove the enlarged lymphatic glands by an incision one and one-half inches long over the glands, parallel to the lower border of the jaw and close beneath it. When the lympathetic glands are enlarged and closely adherent to the submaxillary gland, he removes the latter, previously ligating in two places and dividing between the ligatures, the facial artery where it passes over the upper and posterior border of the submaxillary gland. By retracting the edges of the wound the glands can easily be removed by the finger, director and scissors. He then excises the epitheliomatous ulcer by cutting through the whole thickness of the lip and removing at least half an inch of the tissue to each side of the ulcer. He considers the removal of the affected glands beneath the angle of the jaw of equal importance to the removal of the primary epithelioma, because re-appearance of cancer takes place most frequently in these glands.

Dr. M'Ardle calls attention to a case of "Arrest of Development in Intra-uterine Life." The mother met with a railroad accident while travelling. Some five months and eighteen days after, she gave birth, a little before full term, to a child which showed arrested development of the head, spine, and right leg.

Dr. More's paper "Extensive Intestinal Ulceration in Typhus Abdominalis Ambulatorius, fatal by Convulsions on the ninth (?) day," completes this number.

THE OPTHALMIC REVIEW

for December, 1892, commences with an interesting original contribution by Charles A. Oliver on "Similarly placed Opacities of the Cornæ Occurring in Mother and Son." The

cornæ of the boy, eight years of age, presented dense, almost centrally situated opacities surrounded by an annulus or ring of superficial pin-dot opacities, without any trace of inflammatory vascularity, and unaccompanied by any other gross ocular lesions. Strangely enough the corneæ of the mother's eyes presented similar opacities.

Amongst the Reviews there is one upon three papers by Darier, of Paris, upon "Subconjunctival Injections of Corrosive Sublimate in the Treatment of various Diseases of the Eye." It is stated that marked benefit has been obtained in cases of iritis, irido-choroiditis, and various inflamatory conditions of the cornea by injecting one to two minims of a 1 to 1000 solution of corrosive sublimate beneath the conjunctiva.

There is also a Review of Allvar Gullstrand on the "Objective Method of Diagnosis in Paresis of Ocular Muscles." The method consists in a systematic comparison of the corneal reflection as seen in the pupil when the eyes are rotated in the various meridians of the fields of fixation. It is based on the well-known fact that a corneal reflex changes its position in the pupil when the eye moves and the reason that it does so is that the two objects, reflex and pupil, lie at different levels in the eyeball.

A notice of the November meeting of the "Ophthalmological Society of the United Kingdom," reports a discussion upon the "Intra-ocular Injections of Antiseptic Solutions." It was generally thought probable that in the use of intra-ocular injections a distinct advance in ocular therapeutics might be made.

PERISCOPE.

NEWS AND MISCELLANY.

An Army Medical Board

will be in session in New York City, N. Y., during April, 1893, for the examination of candidates for appointment to the Medical Corps of the United States Army, to fill existing vacancies.

Persons desiring to present themselves for examination by the Board will make application to the Secretary of War before March 15, 1893, for the necessary invitation, stating the date and place of birth, the place and State of permanent residence, the fact of American citizenship, the name of the medical college from whence they were graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates based on personal knowledge, from at least two physicians of repute, as to professional standing, character, and moral habits. The candidate must be between 21 and 28 years of age, and a graduate from a Regular Medical College, as evidence of which, his Diploma must be submitted to the Board.

Further information regarding the examinations may be obtained by addressing the Surgeon General U. S. Army, Washington, D. C.

C. SUTHERLAND,
Surg. Gen. U. S. Army.

American Electro-Therapeutic Association.

At the second annual meeting of the American Electro-Therapeutic Association, the following officers were elected for the ensuing year:

President, Dr. Augustin H. Goelet, 531 West Fifty-seventh street, New York; First Vice-President, Dr. Wm. F. Hutchinson, Providence, R. I.; Second Vice-President, Dr. W. J. Herdman, Ann Arbor, Mich.; Secretary, Dr. Margaret A. Cleaves, 68 Madison avenue, New York; Treasurer, R. J. Nunn, 119 York street, Savannah, Ga.

The third annual meeting will be held in Chicago on Sept. 12th, 13th and 14th, 1893. A cordial invitation is extended to all members of the profession interested in electro-therapeutics. Arrangements for special rates on railways and at hotels are in progress.

The Committee of Arrangements will be obliged if those who intend being present at the meeting will send their names, the class and amount of accommodation required, titles of papers to be presented, applications for membership, etc., at as early a date as possible. Accommodation should be secured early on account of the crowded condition of the hotels, because of the World's Fair. All communications should be addressed to the Secretary.

The committee will be glad to furnish any information in regard to the meeting upon application.

ARMY AND NAVY.

U. S. MARINE HOSPITAL SERVICE FOR THE FOUR WEEKS ENDING FEBRUARY 4, 1893.

Mead, F. W., Surgeon, to proceed to New London and New Haven, Conn., as Inspector, Feb. 4, 1893.

Carter, H. R., Surgeon, granted leave of absence for thirty days, Feb. 3, 1893.

Stoner, J. B., Passed Assistant Surgeon, to assume command of service at Portland, Oregon, Jan. 17, 1893.

Young, G. B., Assistant Surgeon, when relieved to proceed to Pittsburgh, Pa., for duty, Jan. 17, 1893.

Cofer, S. E., Assistant Surgeon, placed on "waiting orders," Jan. 23, 1893.

Eager, J. M., Assistant Surgeon, to proceed to Cape Charles Quarantine for temporary duty, Feb. 3, 1893.

Stewart, W. J. S., Assistant Surgeon, to proceed to Norfolk, Va., for temporary duty, Feb. 1, 1893.

DEATH.—Passed Assistant Surgeon Spencer C. Devan died February 3, 1893, at Philadelphia, Pa.

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ORIGINAL ARTICLES.

ROSWELL PARK, A. M., M. D., Buffalo, N. Y.
The Parasitic Theory of the Etiology of Carcinoma. . 237

V. P. GIBNEY, M. D.
The Management of Suppuration Conflicting Tuberculous Disease of the Bones and Joints. . . 240

CLINICAL LECTURES.

WM. A. HAMMOND, M. D.
On Certain Animal Extracts: Their Mode of Preparation and Physiological and Therapeutical Effects. 243

COMMUNICATIONS.

M. M. EDMONSON, M. D., Dallas, Texas.
Pott's Disease: With Report of Cases. 248

F. H. RUSSELL, M. D., Bluffdale, Ind.
Rheumatism. 251

SOCIETY REPORTS.

The Medico-Chirurgical Society of Louisville. . . 254

CORRESPONDENCE.

New York Letter. 260
The Advance Guard. 261

EDITORIAL

Innocents Abroad. 263

TRANSLATIONS 265

BACTERIOLOGICAL NOTES. 268

ABSTRACTS 270

CURRENT LITERATURE 271

PERISCOPE

THERAPEUTICS. 272
MEDICINE 273
SURGERY 274
NEWS AND MISCELLANY 274
ARMY AND NAVY. 275
CALENDAR OF MEDICAL SOCIETIES. . . . 276

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ORIGINAL ARTICLES.

THE PARASITIC THEORY OF THE ETIOLOGY OF CARCINOMA.*

ROSWELL PARK, A. M., M. D.,† Buffalo, N. Y.

In any discussion on cancer the question of its etiology should always take precedence of that concerning its treatment, since the latter to be both rational and effective should be based upon the former. It is not my purpose at present to consider the numerous theories put forward in time past to explain its essential cause, but rather to invite your attention to a *resume* of the latest and perhaps most fascinating explanation offered as to the prime cause of this dreadful malady.

Just who is entitled to the credit of having first advanced the hypothesis of its parasitic origin it would be hard to tell, but to two English surgeon pathologists, Hutchinson and Paget, we are largely indebted for having advanced the *a priori* plausibility of such a view. In a memorable address some years ago, the latter called attention to the parasitic origin of most of the xylomata or woody tumors seen on so many trees, and ventured the prediction that an analogous parasitic origin would ere long be determined for many of the tumors met with in the animal kingdom. That we now have a class of infectious granulomata acknowledged by all, is not yet sufficient realization of such a prophecy. Virchow recognized so early as 1847, certain peculiar bodies noted in and between carcinoma cells, which he then supposed to be evidences of degeneration. Their true nature was not made out until 1888, when they were identified as belonging to the sporozoa, although he himself later (*Virchow's Archiv*, Bd. 33) suggested the possibility of their being psorosperms.

Inasmuch as the present paper deals mainly with these organisms, it will be proper to stop here a moment to rehearse a few statements concerning their nature and place in the animal kingdom.

First of all they are distinctly *not bacteria* which are vegetable organisms, but belong to the *protozoa* or unicellular *animal* forms.

The *Gregarinidæ* are included in the sub-order Endoplastica and sub-class Sporoza, according to Lenckart, and are described as having ovoidal or spheroidal bodies, sometimes with a segmental constriction, occasionally with one end beaked and carrying horny spines. They consist of a dense ectosarc and a softer endosarc, containing an endoplast but no contractile vacuole. They are essentially parasitic. They have no oral aperture nor pseudopodia. They contain granular protoplasm with nucleus and nucleolus, and vary in size even up to a centimeter in diameter. The *Coccidia* form another sub-class of the Sporozoa, are quite similar to the above, but have a micropyle at one end.

According to another classification the Sporozoa or Cytozoa are divided into four sub-classes as follows:

* Read before the New York State Medical Society, February 8, 1893.

† Professor of Surgery, Med. Dept., University of Buffalo; Attending Surgeon, Buffalo General Hospital, etc.

Gregarinidea (by some held to include the coccidia.)

Coccidiidea or Microsporidia.

Myxosporidia.

Sarcocystidia or Sarcosporidia.

But minutiæ of classification aside, it is enough for our present purposes that the bodies in question are exceedingly minute forms of unicellular animal life. In 1878 Rivolta (*Dei parassiti vegetali*, Turin, 1878,) and Bollinger (*Virchow's Archiv.*, Bd. 58,) recognized their parasitic nature and identified them as gregarinæ; and they gave to the lesions found in fowl and pigeons which so closely resemble molluscum, the suggestive name *Epithelioma gregarinosum*. In 1880, Nedopil, Herisson and others thought to characterize miliary carcinomatosis as an infectious disease. Neisser, in a study of molluscum contagiosum (*Vierteljahrschft f. Dermatol*, 1888, XV. 553) distinguished between their spores and better developed stages. He only studied them in sections, his culture and inoculation experiments failing. He found them in greatest number in affected tissues, but also in uninjured cells and adjacent tissues.

L. Pfeiffer described, also in 1888, (*Zeitschft. f. Hygiene*, 1888, III., 3 and IV., 442) certain bodies met with in two cases of general carcinosis and one of sarcoma of the breast, and regarded them as belonging to the Sporozoa. He found them in the epithelial cells of a fresh, warm melanotic growth, and studying their developmental stage saw that it resembled closely true spore formation of the micro-sporidia. (See also *Die Protozoen als Krankheitserreger*, Jena, 1890.)

Darier, in 1889, observed certain bodies which he believed to be coccidia in a hitherto undescribed skin disease to which he gave the name *Psoro-spermose folliculaire vegetante* (*Annales de derm et de syph.*, 1889, No. 7), and later, with Wickham (*Centrlbl't f. Path. Anat.*, I., 682,) he attributed Paget's disease of the nipple to a coccidium which invades the skin.

It would certainly seem as though, providing Paget's disease of the nipples be a factor in the production of certain mammary cancers and that it be a true psorospermosis, the best conditions for a study of the parasitic nature of cancer would be met with in cases of this disease.

Hutchinson, Jr., (*Trans. Path. Soc.*, London, XLI, 1890, 214) and Wickham (*Archives de med. experimentale*, 1890, I., 1; *Annales de dermat et de syph.*, 1890. I and II) have both studied the matter carefully, the latter with seven cases. Wickham describes three stages of the disease after invasion:—

1. Thickening and disorganization of the epidermis and inflammation of the corium.

2. Elevation of the horny cells, lively escape of leucocytes which crowd aside the epithelial cells, proliferation of the rete mucosum and the epithelium of the sweat, sebaceous and milk glands, and finally extensive infiltration of the cutis.

3. Stage of true carcinomatous growth from both the superficial and glandular epithelium.

In the beginning the parasites appear with or without nuclei, later surround themselves with a double membrane, while the contained protoplasm differentiates itself into a number of granules, and thus is formed what he calls a sporiferous cyst. These he found not only in the epidermis, but also in various gland ducts and in the pearly bodies. This in spite of failure to cultivate or inoculate.

Darier and Wickham did not doubt their parasitic as well as their pathogenic character, and felt that under their influence not only epithelioma but other forms of carcinoma might develop.

Malassez and Albarran found in two epitheliomata of the jaw peculiar bodies having striking resemblances to the coccidia so often found in the livers of rabbits (*Soc. de. Biol.*,1889, Avril), and Vincent had a similar experience (*Annales de micrographic*, 1890, II. p. 10.)

Thoma found in the nuclei of many cancer cells peculiar bodies so different from other human cells that he considered them parasitic and thought they might be encapsulated coccidia (*Fortschrit d. Med.* 1889, p. 413.)

Sjörbring of Lond, (*Ibid.* p. 529) studied their life history and found free extra-cellular as well as intra-cellular and spore forms, and called attention to their resemblance to the organisms which produce *pebrine* in silkworms. Steinhaus examined thirty cancers from various sources, sometimes finding these bodies, sometimes not, but considered them parasitic when present. (*Virchow's Archiv.*, Bd. 126, p. 533.)

Hacke described, in 1890, four cases of cancer in which he found coccidia in and among the cells, varying in size from two to fifty microns, the smaller intra—the larger extra—cellular, spherical, encapsulated, the capsule very highly refractive. Within the cell they often appeared as in a vacuole, owing to the shrinking of the surrounding protoplasm during hardening. As they grew they seemed often to fill and destroy the cell (*Soc. de. Biol.*, 1890, Nov. 8.)

Van Henkelom, of Leyden, studied some two hundred tumors and came to conclusions essentially those of Thoma and Sjörbring (*Centrlblt f. Path. Anat.*, 1890, p. 704.)

But these views were not accepted without lively dispute. Russell, Pifford, Schütz (*Microscopische Carcinombefunde.* Frankfurt, 1890), Török and Tommasoli, among others, after minute study claimed that these so-called coccidia were only altered cells, simple masses of chromatin, products of degeneration, etc. Klebs made implantation experiments without success, and these bodies underwent no change nor increase. Duplay and Cazin finding no such changes as they thought coccidia in their evolution should evince, concluded these bodies to be of degenerative origin and to result not only from cells but from mitoses.

Ribbert made a most exhaustive study (*Deutsche med. Wochschft.*, 1891, p. 1179) of cell inclusions in cancer and concluded that his results did not permit his acceptance of the parasitic theory, and therefore held to the degenerative view of their nature.

Ramsay, Wright (*Centrlblt f. Allgem. Path.*, 1890, No. 11) and Russell (*Br. Med. Jour.*, 1890, p. 1297), while not so opposed to the parasitic view, referred these bodies to the saccharomyces. Moreover the latter found among them certain granules which have an affinity for fuchsin, the so called "fuchsine bodies" (fuchsinophile) which are also to be found in other pathological and in normal tissues.

Cornil (*Journal de l'anat et de physiol.*, 1891, No. 1) and Hausemann (*Virchow's Archiv.*, Bd. 123, p. 356, 1890) think it possible to mistake for coccidia or their spores, various stages of karyokinetic cell division.

Strobe (*Ziegler's Beiträge*, 1891, xi, Hft. 1) and Steinhaus (*Centralblt f. Allgem Path.* 1891, No. 2) feel compelled to admit the sporozoan nature of these bodies, but are not convinced they are the true cause of cancer. * * * *

Since 1890 scarcely an article has appeared on the subject of cancer bacilli, and the attention of all workers in this field seems to have been concentrated on the sporozoa which are alleged to cause the disease.

Inasmuch as everything now points in their direction, it will be worth while to refer briefly to methods for their detection. Pieces of cancer tissue should be preserved in Flemming's solution, which seems to cause the organisms to appear to better advantage. The stain which gives the best result is the so-called Ehrlich-Biondi triple stain, whose formula is simple but whose happy combination seems difficult. The directions given are to dissolve

Methyl green	0.5	in distilled water.	100,
Acid fuchsin	0.5	" "	40,
Orange	2.0	" "	200;

these solutions to be mixed and filtered before use. Sections are left in it for twelve hours, then washed, dehydrated, cleared and mounted. With this stain the nucleus of the cancer will become green, the protoplasm orange-red; the nucleus of the parasite red and its protoplasm light-blue. Puffer, Walker and many others have not hesitated to pronounce the included bodies to be true parasites. * * *

Herewith is concluded a necessarily incomplete brief summary of our present knowledge bearing on one of the most important topics now or ever before our profession. While the parasitic theory is by no means new, the facts which tend to substantiate it are of very recent discovery; so recent in fact that it would be folly to accept them as all sufficient. Obviously they can but constitute a mere foundation upon which we may hope to build. The other all-important yet subsidiary topics of the geographical distribution of cancer, and the influence of sex, age, part involved, civil and sanitary condition, injury, heredity, state of nutrition, and of preceding benign growth, must be constantly borne in mind. Many apparent contradictions must be explained; many conflicting statements reconciled.

The proper position for the real student, it would seem to me, is in the middle ground between skepticism on the one

hand and credulity on the other, waiting and working for the light that we have great reason to eagerly expect, and probably from the direction indicated in the course of this paper.

For my own part I cannot help feeling that we are on the eve of great discoveries in this matter, partly, perhaps, because I have for years had a growing conviction that cancer—and syphilis too—are parasitic diseases due to either unfamiliar or yet unknown organisms, and that some new technical method or some new application of old methods would ere long furnish the key to the mystery. Whether we have been recently supplied with this by the investigators quoted above is as yet uncertain, though probable.

How anxiously impatient yet sanguine I am you may better appreciate when you recall that my home is in a limited area where the death rate from cancer is greater than in any other part of our continent.

THE MANAGEMENT OF SUPPURATION COMPLICATING TUBERCULOUS DISEASE OF THE BONES AND JOINTS.*

V. P. GIBNEY, M. D.

From frequent analyses of cases treated in the hospital I do not hesitate to present my views without a statistical backing. The claim is often made by my colleagues in orthopædic surgery that suppuration can be prevented by the *timely* use of apparatus. At times I have been strongly tempted to make this claim myself. The whole question hinges on what we understand by the term *timely*. It will be readily admitted by medical men as well as surgeons that, if a case of tuberculous bone lesion in the neighborhood of the joint can be recognized very early and before any deformity arises, adequate protection to the joint will certainly contribute largely to the prevention of suppuration. The value of rest to any inflamed tissue has been established too long for any cavil at this late date. A difference of opinion often exists as to what is and what is not absolute rest to a part, one surgeon claiming that the apparatus he employs affords perfect protection even if *absolute* rest is not maintained, while another claims that perfect protection can not be secured unless *absolute* rest is maintained.

Take, for instance, the appliances used in the treatment of tubercular ostitis of the hip, or what is commonly known as "hip disease." The long splint, with which all are familiar and which forms the chief element in the American method of treating the disease, does not absolutely rest the joint, but permits a small range of motion however snugly applied. The traction employed by means of this apparatus depends largely upon the surgeon himself. Many who use it do not believe that it is possible to get a sufficient amount of traction to separate the articular surfaces, and claim that it gives only a sufficient amount of traction to prevent trauma. On the other hand, there are some who believe that it is possible to make the traction such that the articular surfaces seldom, if ever, came in contact. From a personal knowledge of the manner in which this splint is employed, my own belief is that the protection is seldom perfect, but that it is sufficient to guard the joint against trauma if the surgeon himself looks after the dressings, and makes the parent or nurse acquainted with the principle involved. This means, of course, intelligent co-operation.

The Thomas splint does not make any traction on the joint, but is simply a fixation appliance and must, of necessity, make a lever of the limb. And to do this it is difficult for one to see how the joint can help being injured more or less by contact of articular surfaces. It is claimed that the employment of axillary crutches is sufficient to guard against this evil, yet when one considers how little time during the twenty-four hours the patient is on the axillary crutches, he can readily understand the nature of some of the objections to the apparatus.

The combination of the long splint with

*Read before the New York State Medical Society.

the Thomas apparatus, theoretically, affords absolute rest as well as protection to the joint, and would seem to be all that is desired; yet the difficulty of adjusting, and the confinement of the whole body serve to make such a combination apparatus really of little practical value.

It is nevertheless true that with any of these forms of apparatus mentioned, the large proportion of cases, taken in the early stage and before deformity has arisen, do proceed to a cure without suppuration, and eventually, in many instances with complete restoration of the functions of the joint. On the other hand, it is just as true that there are cases taken in the very early stage, with the most approved forms of apparatus and with the most skillful men in charge of the same, that do go on to suppuration in spite of all we may do. We are in the habit of speaking of such cases as severe from the beginning. We speak of the lesion as a large one, involving three or four centres in the end of the bones and rapidly encroaching one upon the other. Thus much for the prevention of suppuration.

Our knowledge of the nature of tuberculous suppuration in a bone enables us to fix pretty definitely upon the locality, but the location of an abscess is not always a guide to the seat of disease. Small abscesses attended with very little constitutional disturbance one can safely treat expectantly; can treat the joint itself by protective apparatus and look upon the pus collection as of minor importance. In the preantiseptic day surgeons, as a rule the world over, were content to leave bone abscesses alone unless they became acute or very extensive. The surgical rule to *let out pus wherever found* did not apply to cold abscesses, and it was only occasionally that a bold surgeon advocated immediate interference. Since the advent of antisepsis it has been the custom to incise more freely, and there are many surgeons to-day who believe it good practice to operate whenever a pus collection is found. Yet there are a very respectable number, whose experience has been large, who still hesitate to operate unless constitutional symptoms develope.

It may be safely said of the Orthopædic Surgeon that *early interference is exceptional.* It is claimed by some of these gentlemen that adequate protection to the joint limits the suppurative process and does away with the necessity for incision. A rather extended personal experience has prejudiced me somewhat in favor of the aspiration of small abscesses, without the injection of any fluids or agents. I am satisfied that the percentage of cure is fifty per cent. The results of the introduction of iodoform in the various emulsions has not encouraged me in recommending this procedure. My plan in aspirating is about as follows: Use a good sized sterilized needle; go fearlessly and quickly into the sac, evacuate completely if possible, if not, incompletely; apply over the skin a basket strapping of rubber adhesive plaster—the straps drawn tightly; a roller bandage over this; keep the patient in bed for twenty-four hours with an ice bag over the parts, then let him go about with the apparatus properly adjusted. At the end of a fortnight repeat the operation with same after treatment. From three to six aspirations usually suffice to effect a cure.

Where a cure is not affected in this way I resort to a free incision; expose to view as much of the sac as possible; dissect away or currette with a flush gouge; dry the parts thoroughly with antiseptic gauze; pack lightly with iodoform, dermatol or boracic acid gauze, and over all this a full dressing. Remove the packing in about forty-eight hours; bring the edges of the wound together throughout the greater part of its extent, leaving an opening a half inch in length into which a drainage tube or gauze tent is inserted and redress every three or four days.

My experience in attempting complete removal of the sac and closure for primary union has not been sufficiently encouraging to lead me to speak favorably of this method. In many instances where I have secured primary union, and where the immediate result has been brilliant, the sac has refilled at a later period; I have been compelled to open the wound anew and do a bone operation, either gouging thoroughly or excising.

Where the abscess is in close proximity to the lesion, it is best, in my judgment, to do a bone operation at once, aim to remove the diseased portion and pack the cavity as in an abscess remote from the bone lesion. Roughly speaking, I should say at least fifty per cent. of abscesses opened in the manner above described,

wherein no attempt has been made to treat the bone itself by operatic measures, fifty per cent. of these cases, I say, come to the bone operation, generally as a life saving measure.

After all, I am not eager to interfere with these small abscesses, and prefer to keep them under observation, with protective apparatus to the limb, for a long time before interference; and, in a fair proportion of cases, the sac grows smaller or becomes more dependent and opens spontaneously with excellent result. So that I am in the habit of recommending to my class at the Polyclinic non-interference unless the surgeon is fully equipped for the details of antiseptic technique.

In the large multilocular abscesses that I meet for the first time, my plan is to incise at once, reduce the cavity if possible to a sinus or sinuses, establish good drainage, and at a later date attack the bone. If, however, the patient's condition is unfavorable I do not hesitate to attack the bone as soon as I open the abscess. These remarks apply more especially to tubercular disease of the hip-joint, and naturally lead up to the question of excision.

Notwithstanding the abundance of literature, both statistical and clinical, on this subject we are not as yet in possession of sufficient knowledge to enable us to determine when to excise and when not to excise. The final results of this operation, so far as I have been able to understand them, do not encourage me to advocate excision in all cases where extensive abscesses are present. In hospital work I have learned to rely upon the conditions of the patient, upon his behavior under expectant treatment for a while, upon the condition of the urine—that is the persistence of a low specific gravity and upon the probable extent of the disease. The cases most suitable, in my judgment, are those wherein the abscess appears in the gluteal region, is limited to this area and where one can readily get down upon the bone and secure the best drainage. Such cases, as a rule, present on section a limited area of disease, and whether one attempts complete eradication or partial, the results are usually good.

The class of cases that are most obstinate and that cause me to hesitate a long time, are those where the abscess appears in the groin in Scarpa's space, or on the inner side of the thigh. The pus sacs usually encroach extensively upon the femoral vessels and, as a rule, involve not only the head and neck, but a portion of the shaft. It is next to impossible to remove all the offending material, and very difficult to get healing from the bottom by reason of the number of pockets that have formed in the neighborhood of the joint. In a few instances I have adopted the plan recommended by my friend Dr. Poore, of New York, namely, curetting the shaft of the femur and making a counter-opening above the knee. My results have not been as good as he has obtained and hence the measure has not met with my cordial approval. In a few instances I have curetted the bone without making the counter-opening; have kept the shaft well packed with iodoformized gauze, subsequently with drainage tubes. A small proportion of such cases have done well, and I feel encouraged to continue this procedure.

The class of cases that are suitable for partial arthrectomy and gouging of bone is very small. In a number of instances I have been compelled to follow with a complete excision weeks or months after the partial operation, and my experience, therefore, coincides with that of surgeons who have written upon this subject.

In the management of suppurative disease above the knee joint, I can speak quite confidently of what is known as the expectant plan. That is this: Correct deformity by gradual extension, either in bed with the weight or pulley, or with extension apparatus; aspirate when pus is detected; follow this up by incision if the aspiration fails; drain thoroughly. Follow this procedure up by gouging out the foci of disease, packing from the bottom, and in every instance, if possible, endeavor to preserve the component parts of the joint. All of my operations upon the knee in children are supplemented by protective apparatus and a long course of such treatment. These remarks apply especially to the disease as it occurs in children. In adults I favor excision, rather than a partial or complete arthrectomy.

In suppuration involving the bones of the ankle joint in children, it makes little difference whether one incises abscesses or removes foci of disease in the bone, so far as the ultimate result is concerned. I am convinced, from a long study of these cases, that the rule is a recovery with a

joint practically perfect. In no instance, I am satisfied, is it ever necessary to amputate the leg for disease in adults. Where one can be satisfied that bones within reach are alone involved, then a partial operation with fixation of the joint for many months thereafter does result in a cure. Yet one can never feel satisfied that all of the bones diseased have been reached, and hence the necessity for more stringent measures.

I have said nothing thus far on the tuberculous disease of the bones of the spinal column, but the same treatment is applicable here as in the bones already mentioned. I do believe, if one treats the back with a splint for a long period of time, that the abscess sacs are easily managed and that in a large percentage of cases a cure will result. By splinting the back I mean the continuous and uninterrupted employment of an apparatus that will prevent motion and deformity. It is not sufficient to apply a brace or a jacket that can be removed at will by the parents or friends, for the reason that abuses are bound to occur and disappointment will follow.

In concluding let me summarise as follows:

(1.) Protect the joint about which the bone lesion exists in the early stage and in the later stages, whether the abscess is let alone, aspirated or incised.

(2.) In cases where the suppurative process is confined to a small area, it is good surgery to leave the small abscesses alone if the protective appliance is adequate.

(3.) It is good practice to aspirate where the abscess is in the way of the proper adjustment of apparatus, and by such procedure one may expect good results in at least 50 per cent. of the cases aspirated.

(4.) The simple incision of an abscess dependent upon bone disease depends for good result upon the extent of the bone lesion.

(5.) Excision of the hip is not a measure to be employed in all cases where extensive suppuration exists, but must depend largely upon the condition of the patient and the location and extent of abscesses.

(6.) Expectant treatment for the knee and ankle joint in children yields the best results for life and limb.

(7.) Amputation of the ankle in a child is rarely ever justifiable except when amyloid disease of liver or kidneys threatens or is present; of a hip after a thorough excision has failed.

(8.) The long continued employment of a good fitting splint to the back in Pott's Disease of the spine will yield better results than any operative procedures on the bone with which I am familiar.

CLINICAL LECTURES.

ON CERTAIN ANIMAL EXTRACTS: THEIR MODE OF PREPARATION AND PHYSIOLOGICAL AND THERAPEUTICAL EFFECTS.*

WILLIAM A. HAMMOND, M. D.†

Gentlemen:—I wish I could believe all the pleasant things that my friend, Professor Roosa, has, in the goodness of his heart, just said about me. There are two expressions of his, however, which I know to be true. First, I scarcely need any introduction here, for though I have been away from you for more than four years, I feel that I am, if only for an hour or so, back among my own people and I experience something of the emotions of the captain who walks the quarter deck of his ship. Second, I am one of the founders of this school. I shall always regard that fact as the most honorable of all the events of my professional life—the one in which I take the most pride. The excellence of the work done here by the faculty and the phenomenal success that has attended

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† Surgeon-General U. S. Army (retired), late Professor of Diseases of the Mind and Nervous System in Institution mentioned.

upon their labors are circumstances of which they may well feel a justifiable elation and in which emotion I claim the right to share.

But I am not here to-day to speak of the triumphs of this school. I want to tell you of some of the work upon which I have been engaged since I left you, and the story will, I think, interest a body of physicians like yourselves who come here to learn new facts and thus to keep abreast with the progress of the age. You remember that about three and a half years ago Dr. Brown-Séquard electrified the medical and non-professional world by announcing that the expressed juice of the testicles of the guinea pig was an agent capable, when injected into the blood, of arresting to some extent the inroads of old age and of curing certain diseases to which mankind is subject. I at once entered upon a series of investigations of the matter, some of the results of which are published in the *New York Medical Journal* for August 13th, 1889. I became convinced that we had in the juice of the organs in question a means of acting upon the body in a manner and to an extent different from that of the effects of any other substance previously known to medical science.

But, though surprising in its action, I found that there were certain practical difficulties in the way of the fresh testicular juice ever becoming of general use in actual practice.

In the first place it had to be used fresh, for if not, there was great danger of a putrefactive process being set up and blood poisoning produced, and this was the result in several cases in which it was used in this country. In large cities there is almost an impossibility of getting the organs in question immediately on their being removed from the animal.

Secondly, it was extremely difficult to filter the thick juice, even when diluted according to Brown-Séquard's directions. Filtering paper would not do, for the morphological constituents passed through and an abscess was very liable to be produced at the point of injection. A porous stone filter absorbed the juice and none of it came through, as there was never a sufficient quantity to saturate the stone and to pass through it. A large amount could not properly be made at one time, as it would not keep, so that it was necessary at every *séance* to prepare a fresh quantity.

After a time, therefore, during which I did my best with the fresh juice; using for this purpose the testicles of the ram and creating several abscesses with febrile disturbance, I gave up this method and turned my attention to preparing extracts not only of the testicles but of other organs of the body. It would be to some extent instructive to go over my failures, but I have not time for that. I can only on this occasion tell you of my success and the conclusions I have arrived at in regard to the subject. And I shall mainly confine my remarks at present to the consideration of one extract, that of the brain, which for convenience I designate "cerebrine." I will merely say that I have prepared extracts also of the spinal cord,—"medulline;" the testicles,—"testine;" the ovaries,—"ovarine;" the pancreas,—"pancreatine;" the stomach,—"gastrine," and the heart,—"cardine," and that I am nearly ready to give to the profession the results of my observations with these substances. Of course the kidneys and the liver being excretory organs, can not properly be used for the purpose of making extracts to be introduced into the blood. Were we to use them in this manner we should be putting back into the system poisons which it had eliminated, and hence would produce disaster, and perhaps, even death.

The process of preparation of the extract of these several organs, while individually somewhat different, does not materially vary from that used for the brain, which is as follows:

The whole brain of the ox after being thoroughly washed in water acidulated with boric acid, is cut into small pieces in a mincing machine. To one thousand grammes of this substance, placed in a wide-mouth glass-stoppered bottle, I add three thousand cubic centimetres of a mixture consisting of one thousand cubic centimetres each of saturated solution of boric acid in distilled water, pure glycerine and absolute alcohol. This is allowed to stand in a cool place for at least six months, being well shaken or stirred two or three times a day. At the end of this time it is thrown upon a porous stone filter through which it percolates very slowly, requiring about two weeks for entirely passing through. The residue remaining upon

the filter is then enclosed in several layers of asceptic gauze, and subjected to a pressure of over a thousand pounds, the exudate being allowed to fall upon the filter and mixed with a sufficient quantity of the filtrate to cover it. When it has entirely filtered it is thoroughly mixed with the first filtrate and the process is complete.

During the whole of this manipulation the most rigid antiseptic precautions are taken. The vessels and instruments required are kept in boiling water for several minutes and are then washed with saturated solution of boric acid. Bacteria do not form in this mixture under any circumstances, but it is necessary to examine it from time to time microscopically, in order to see that no foreign bodies have accidentally entered. Occasinally, owing to causes which I have not determined, though I think it is due to variations in temperature, the liquid becomes slightly opalescent from the formation of a flocculent precipitate. It sometimes takes place in a portion of the extract kept under apparently identical conditions with other portions that remain perfectly clear. It can be entirely removed by filtration through Swedish filtering paper, previously sterilized, without the filtrate losing anything of its physiological or therapeutical power.

Five minims of this extract diluted at the time of injection with a similar quantity of distilled water constitute a hypodermic dose.

The most notable effects on the human system of a single dose are as follows—though in very strong, robust, and large persons, a somewhat larger dose is required, never, however, exceeding ten minims:

1. The pulse is increased in the course of from five to ten minutes, or even less in some cases, by about twenty beats in a minute, and is rendered stronger and fuller. At the same time there is a feeling of distention in the head, the perspiration is largely increased, the face is slightly flushed, and occasionally there is a mild frontal, vertical, or occipital headache or all combined, lasting, however, only a few minutes.

2. A feeling of exhilaration is experienced which endures for several hours. During this period the mind is more than usually active and more capable of effort. This condition is so well marked that if a dose be taken about bedtime wakefulness is the result.

3. The quantity of urine excreted is increased, when other things are equal, by from eight to twelve ounces in the twenty-four hours.

4. The expulsive force of the bladder, and the deristaltic action of the intestines are notably augmented, so much so that in elderly persons in whom the bladder does not readily empty itself without considerable abdominal effort, this action is no longer required, the bladder discharging itself fully and strongly, and any existing tendency to constipation disappears, and this to such an extent that fluid operations are often produced from the rapid emptying of the small intestine.

5. A decided increase in the muscular strength and endurance is noticed at once. Thus, I found in my own case that I could "put up" a dumb-bell weighing forty-five pounds fifteen times with the right arm and thirteen times with the left arm, while after a single dose of the extract I could lift the weight forty-five times with the right arm and thirty-seven times with the left arm.

6. In some cases in elderly persons an increase in the power of vision is produced, and the presbyoptic condition disappears for a time.

7. An increase in the appetite and digestive power. Thus, a person suffering from anorexia and nervous dyspepsia is relieved of those symptoms, temporarily at least, after a single dose hypodermically administered.

These effects are generally observed after one hypodermic injection, and they continue for varying periods, some of them lasting for several days. In order that they may be more enduring, two doses a day should be given every day or every alternate day, as may seem necessary, one in the morning and one in the afternoon, and kept up as long as the case under treatment seems to require. The most notable effects are seen in the general lessening of the phenomena accompanying advancing years. When some special disease is under treatment, the indications for a cessation of the injections will be sufficiently evident, either by an amelioration or cure.

To the substance obtained in this manner and held in solution, I have given, as stated, the name of "Cerebrine" as the

one, in view of its origin, most appropriate.

I have employed the solution of "Cerebrine" with curative effects in many diseases of the brain and nervous system. It is almost specific in those cases of nervous prostration—the so-called neurasthenia—due to reflex causes or excessive mental work, or persistent and powerful emotional disturbance. A hypodermic injection of five minims, twice daily, continued for two or three weeks, and without other medicine, being sufficient to produce cure. It has proved equally effectual in cases of cerebral congestion, in which the most prominent symptom was insomnia, sleep being produced usually in the course of two or three nights. I have also employed it successfully in migraine, hysteria, melancholy, hebephrenia—the mental derangement occurring in young people of either sex at the age of puberty—in old cases of paralysis, the result of cerebral hemorrhage. In neuralgia, sciatica, and in lumbago, it has acted like a charm, except in one case of facial neuralgia, in which it did not appear to be of the slightest service.

I have employed it in eleven cases of epilepsy. Three of these were of the *petit mal* variety; in two the effect has been so marked that I am not without the hope that cures will result, although I am not able, as yet, to speak positively on this point, the patients having been less than a month under treatment. In the other no influence appeared to be produced.

Eight cases were of the *grand mal* variety. In two of these the number of paroxysms has been reduced more than one-half, and greatly mitigated in severity. In six other cases which were of long duration I could perceive no curative effects.

In a case of general paresis no therapeutical influence was apparent beyond that of arresting the delusions of grandeur for a few days. In a case of hebephrenia, however, occurring in the person of a young lady eighteen years of age, the effect has been most happy, the symptoms entirely disappearing in a little more than a month's treatment.

In several cases of nervous prostration, the result of long-continued emotional disturbance, and in which there were great mental irritability, dyspepsia, physical weakness, loss of appetite and constipation, relief was rapidly afforded. In three other cases in which the most notable symptom was functional cardiac weakness, the effect has been all that could have been desired. In these cases it was employed in conjunction with "Cardine," the extract of the heart of the ox, made in the manner already described.

It is not my intention at the present time to bring before you all the points of this interesting subject, or to allude further to experiments in the treatment of other diseases, which are not yet concluded. In the near future I shall enter more largely into the consideration of the matter in all its details. I will only add now that I have used with excellent results in cases in which it seemed to be indicated, the extract of the testicles of the bull and also that of the pancreas of the ox, and these investigations also will be given to the profession at an early day. The first named of these—"Testine"—I have found to be of the greatest efficacy in the treatment of sexual impotence when it has been the result of venereal excesses, and in cases of too frequent noctural seminal emissions.

It has recently been alleged by some medical authorities, that there is no difference in the physiological or theraputical action of medicines, whether they be introduced directly into the blood by hypodermic injections or taken into the stomach, but it is scarcely worth while to seriously combat this assertion.

For while it may be true that some substances are not altered by the gastric juice before they are absorbed into the system, it certainly is not true of many others, and it surely is erroneous as regards those of animal origin. Indeed it is, I think, doubtful if anything capable of being acted upon by the gastric juice and of being absorbed into the blood gets into the system in exactly the same form in which it got into the stomach. And I am very sure that all organic matters, without exception, undergo radical changes under the action of the gastric juice, in some cases amounting to decomposition and recomposition.

It is well known that Woorara, the virulent arrow poison used by the Indians of South America, and which is invariably fatal to animal life when injected into the blood, is innocuous when taken into the

stomach, even in very large quantity. I have ascertained, by actual experiment, that the poison of the rattlesnake may be swallowed with impunity. During the course of my medical service in the army on the Western plains, I have collected a large quantity of rattlesnake poison. A small fraction of a grain of this injected hypodermically was sufficient to kill a dog in a few minutes, while previously the same animal had been made to swallow a half a drachm without the production of any apparent result. Experiments made with the saliva of hydrophobic animals prove that it is rendered harmless by the action of the gastric juice. The vaccine virus may certainly be swallowed with impunity, as has been shown by repeated experiments upon animals.

Relative to the animal extracts to which I am now referring, I have ascertained beyond question that if they are inclosed in capsules so as to reach the stomach without coming in contact with the mucous membrane of the mouth, they are absolutely without physiological or therapeutical effect so far as can be perceived, even when given in quantities of a teaspoonful or more, but if dropped upon the tongue in double the quantity used for hypodermic injection and allowed to remain in the mouth without being swallowed—thus avoiding the action of the gastric juice—they are absorbed and exert a slower but still decided effect, though nothing comparable to that produced when they are administered hypodermically.

Now, gentlemen, a few words in regard to the theory upon which these animal extracts exert these remarkable effects. I have thought a good deal upon the matter and I think I have arrived at something like the truth. But after all a theory, even when supported by indisputble facts, is not a matter of so much importance as the facts themselves. And it is better if you are sure of your facts to have an erroneous theory than none at all. The one I am going to propose is, I think, in accordance with physiological law, and I believe that it will strike your minds as being based on common sense, and as being sufficient to account for the observed phenomena. Briefly stated, it is as follows:

Organic beings possess the power of assimilating from the nutritious matters they absorb, the peculiar pabulum which each organ of the body demands for its development and substance. The brain, for instance, selects that part which it requires; the heart, the material necessary for its growth and preservation, and so on with the liver, the lungs, the muscles, and the various other organs of the body. No mistake is ever committed; the brain never takes liver-nutriment, nor the liver, brain-nutriment; but each selects that which it requires. There are, however, diseased conditions of the various organs in which this power is lost or impaired, and as a consequence disturbance of function, or even death itself, is the result.

Now, if we can obtain the peculiar matter that an organ of the body requires and inject it directly into the blood, we do away with the performance of many vital processes which are accomplished only by the expenditure of a large amount of vital force.

Let us suppose a person suffering from an exhausted brain, the result of excessive brain-work. Three hearty meals are eaten every day; but no matter how judiciously the food may be arranged, the condition continues. Now if we inject into that person's blood a concentrated extract of the brain of a healthy animal we supply at once the pabulum which the organ requires. Then, if under this treatment the morbid symptoms disappear we are justified in concluding that we have successfully aided nature in doing that which unassisted she could not accomplish.

All this is applicable, not only to the brain, but certainly to the heart, the generative system, the spinal cord, and I believe other organs of the body. I have repeatedly seen a feeble heart rendered strong, the blood corpuscles increased in number, and the color of the blood deepened by the use of Cardine, and I have many times seen an exhausted sexual system restored to its normal power by the use of Testine, Cerebrine and Medulline.

Such is the system, and yet I am not quite sure that it is entirely new. I recollect reading nearly forty years ago an account of some observations made by, I think, a German physician, relative to the treatment of diseases of the several organs of the body by a system of diet, consisting of the corresponding organs of healthy animals. Thus, liver-disease was treated by beef's liver, heart-disease by beef's heart, brain-disease by beef's brain, and so

on. My memory seems to be clear on the main point, but I have searched in vain for the paper to which I refer. The fact, however, that the various foods in question were cooked and were taken into the stomach constitutes a great difference with the system which I am now discussing, both physiologically and therapeutically; and the results do not admit of comparison. The germ of the idea, however, is the same, and I cheerfully yield to my unknown proto-observer whatever distinction may be claimed on the score of priority.

And while I have been conducting my observations others have been at work in the same direction, but their investigations do not seem to have led to any very definite results, or to have been systematically carried out. Generally they have been performed with the fresh juice of the organs, and, although at first sight this method would appear to be preferable to any other, experience shows that it is, as I have said, not unattended with danger, and I have certainly ascertained that extracts made with glycerine and pressure, extemporaneously, are absolutely without effect, either physiologically or therapeutically.

And now, gentlemen, I commend this whole subject to your serious attention. I shall leave a quantity of Cerebrine with Dr. Leszinsky for distribution among you. I only ask that you will communicate to me the results of your observations.

COMMUNICATIONS.

POTT'S DISEASE: WITH REPORT OF CASES.*

M. M. EDMONSON, M. D., Dallas, Texas.

This disease was recognized by Hypocrates and Galen and methods for its treatment were divised by Ambrose Pare. In 1783 it was first accurately described by Percival Pott. Since that time much has been written of its causation, symptamatology, pathology and treatment.

As the subject is a broad one I will only attempt to give an outline of the signs and symptoms of the incipient stage, and urge the importance of an early diagnosis and treatment.

The diagnosis of Pott's disease after the deformity occurs is only too apparent and from this point of view demands no further notice. It is before this late stage is reached that the skill of the physician and surgeon is called in to alleviate some obscure pain, and to trace to its origin the disease that causes a derangement of the nervous system that makes itself apparent at some remote point, as in the respiratory or digestive systems.

The result of careless examination and a treating of symptoms without due regard to the cause, is made manifest by a record of cases compiled by Dr. Lewis A Sayre of New York. In his work on Orthopedic Surgery he states, that of 225 cases sent him by physicians, only three were sent before the deformity had occurred, and yet the majority of these cases had been treated for some supposed disease.

After making a careful examination of the different organs, and no organic lesion can be found that will account for the chronic symptoms that exist, the patient should be stripped and the spine thoroughly examined. A rigidity of the muscles of the back will be present in this early stage, which rigidity is "Nature's splint" for holding the spinal column in a fixed position and preventing jars and motions in the affected part. A difference in the temperature of the parts, determined by a delicate surface thermometer, may be of service in locating the disease.

The symptom of most importance, and the first complained of by the patient, will be that of pain due to pressure from inflammation on the spinal nerves as they pass out of the canal at the point of disease. The symptoms resulting from this will be most marked at the peripheral distribution of the

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nerves and consequently will vary according to the vertebræ involved. When the disease is high up in the cervical region the pain is most marked at the back of the neck and over the shoulder. If lower down in this region it may cause a chronic irritable cough, difficulty in swallowing and short, jerky respirations. In the upper dorsal region, pain in the chest and on both sides is a prominent symptom. If the sixth and seventh vertebræ are involved the patient may complain of indigestion, flatulence and the sensation of a constricting band around the body. The nerves of this region have their peripheral distribution directly over the pit of the stomach. If the disease is lower down in the spine, the bladder and the rectum may be involved, with radiating pains down the thighs.

In a large proportion of these cases the disease is situated in the intervertebral cartilages or in the anterior part of the body of the vertebræ, hence the pain is often symmetrical. If the first and second cervical vertebræ are involved, the attendant symptoms may be only on one side, giving the position of wry neck which is often mistaken for an idiopathic torticollis. If lower down in this region, or in the upper dorsal, the attitude of the patient is almost pathognomonic; the head is pushed forward, the chin is raised and the whole spinal column is rigid, due to muscular contraction. Lower down in the dorsal region the shoulders are raised and pushed backward. Still lower down the child leans backward protruding the abdomen. If the lumbar vertebræ are involved, the thigh is often flexed, due to psoas contraction which, on account of the deformity, is sometimes mistaken for morbus coxarius.

The absence of pain on direct pressure is no evidence that the vertebræ are not diseased. If the anterior part of the body is diseased pressure on the spinous processes, crowding them together, will diminish the pressure between the bodies and partly relieve the suffering of the patient. Pressure on the head will invariably increase the pain, while suspension by the head and axilla will relieve it. This, I consider the sign *par excellence* in diagnosing Pott's disease. If the disease is primarily at the junction of the ribs with the vertebræ pressure upon the ribs may be the only means by which you can cause pain.

The treatment of these cases is a very important subject. For not only is the life of the patient involved, but long years of suffering follow if the ravages of the disease has spared life in the deformed, shrunken frame. For these reasons is it not strange that this subject has demanded so much attention. All that has been written on the treatment of Pott's disease has one paramount object in view and that is complete rest to the diseased parts. Every deviation from this state of rest brings with it pain and the admonition that the parts are not in a condition for restoration.

Hilton says that "growth is the autotype of repair prefiguring the capabilities of existing structure to repair themselves. As is seen in the growth of the Animal and Vegetable Kingdoms rest is necessary for their full development. In the Animal Kingdom this is obtained by sleep; with plants it is by the heat of summer or the cold winter; then how much more necessary is rest for diseased parts before they can be fully restored to a healthy state, as growth and repair bear a close relation to physiological rest, both local and general."

With this as the essential condition what has been done to obtain it? The first that would suggest itself would be the recumbent posture as by this method all weight is taken off the diseased vertebræ. Samuel D. Gross advised this as an indispensable condition not to be departed from. Yet this method of treatment has serious objections. As a rule these patients have a tubercular diathesis and in many cases are emaciated, weak and anæmic. Take from them the requisites of good health, exercise, sunlight and fresh air and you have taken away the most valuable adjuncts that nature has given man to preserve and restore health.

This being recognized as a condition second only to rest, methods have been devised whereby both can be obtained. The first adaptation of these principles of treatment was made by Dr. C. H. Taylor, of New York. He constructed a brace which gave an excellent antero-posterior support and allowed the patient to take all the exercise necessary for good health. This brace with some modification was

almost exclusively used for years and splendid results were obtained. It is still used by some orthopedic surgeons in the larger cities where the surgeon can superintend the construction of the brace and any modifications that have to be made, for, unless the brace fits accurately and gives the proper support, it does more harm than good. Thus will be seen the impracticability of this or any other brace that has to be made simply from the measurements of the surgeon. Again its great expense would exclude its use in many cases.

The treatment by means of corsets and jackets has given as good if not more satisfactory results than were obtained by braces. The leather jacket made from a plaster cast of the body is expensive and will in a short time become loose and fail to give the necessary support. Cocking's poro-plastic jacket has the same objections, while the plaster jacket, for its general utility, cannot be excelled.

The plaster jacket owes its origin to Dr. Lewis A. Sayre, and his unqualified recommendation of its use has been fully justified by his successful treatment of cases and by its general use to-day. After suspending the patient by the head and axilla until the most comfortable position is reached, the plaster jacket can be made to fit the form perfectly and to give the necessary support and fixation to the diseased parts. The jacket alone may be sufficient when the disease is situated below the fifth or sixth dorsal vertebræ, but when just above this point the jury-mast must be used in conjunction with it.

In an exhaustive article written by Anders in 1889, on the effect of suspension, he concludes that the result is not a separation of the vertebræ and does not directly affect the projection. Yet if bony anchylosis has not taken place, suspension does in some cases decrease the deformity. This can be determined by actual measurements. While this is not due to an actual separation, yet all weight is taken off the anterior portion of the vertebræ and the spinal column is elongated.

The fact the spinal column can be elongated is made clear by G. Frank Lydston, in an excellent article on the treatment of Locomotor Ataxia. This elongation is due in great part to the elasticity of the ligamentum sub-flava. If this can be done when all the structures are in a healthy state why can it not be done in Pott's disease before consolidation has taken place? Some objections have been made to the plaster jacket on account of its weight, and because, after being worn for some time, it becomes soiled and will break down. The slight weight of the jacket, if it is made of the proper material, is not an objection. The other instead of being an objection should be a recommendation for its use as in three or four months it can be re-applied, holding what we might have gained in a reduction of the deformity, and the new jacket made to fit more accurately every change in the form of the child due to growth.

In conclusion I will report two cases that illustrate these old but ever true principles. I give these cases as one was treated before the deformity had occurred and the other after.

Case I. Frank D., aged two years, family history good, no tubercular diathesis being present. The child was in perfect health until April 1891, when he fell about two feet striking on his back. He complained of great pain and was stiff and sore for a few days. Nothing further was noticed until the following June when he began carrying his head in a peculiar position; the head was pushed forward, the chin raised, the shoulders were drawn upward and backward and the body held rigid. Walking or stooping, he was careful and guarded in all his movements, never allowing the spine to bend. At this time he was restless in his sleep. So long as he was in one position he was quiet, but whenever he would move or attempt to turn over he would cry out. On three or four occasions, when the mother was giving him a bath, she tried to straighten his head. Whenever she attempted this the child became unconscious, his respirations were short and rapid. This is a brief history of the case up to the time I saw him in November, 1891, when I was called in consultation by Dr. H. A. Morley of Dallas. Upon examination we found the condition stated above and these additional signs: That pressure on the head and buttocks crowding the vertebræ together increased the pain, while suspension relieved it and his respiration became full and easy. This convinced me that the child was suffering

from spondilitis. The sixth and seventh cervical vertebræ were involved. I could not apply the plaster jacket at once as his abdomen protruded so much that it was impossible to get a good support from the jacket. On December the 12th, I put him in an improvised cuirass making extension on the head. This answered my purpose for the time being, and the child rapidly improved in general health. On January 17th, about five weeks after treatment was begun, I applied the plaster jacket and jury-mast. This treatment was continued, putting on a new jacket every four months until an absolute cure was effected.

Case II. Maude M., aged fourteen, came to me in April, 1892, and gave the following history: In April, 1888, she fell; was sore and stiff for a few days following, but no definite symptoms resulted at that time. A few months after this a slight prominence was noticed in the middle dorsal region. The family physicians were called in and, recognizing the trouble, advised her to lie in bed for several months. She did this for four months and improved some in general health, but the curvature had increased. Nothing further was done until I saw her last April. As the disease was still progressing and the curvature was very marked I applied a plaster jacket. She improved in general health, and I feel satisfied that the disease is stopped. This is all that I hoped for in this case, as the disease was of long-standing and it was impossible to obtain a recession of the deformity.

RHEUMATISM.*

F. H. RUSSELL, M. D., Bluffdale, Ill.

One of the most frequent as well as most troublesome diseases that the practitioner is called upon to treat in a general practice is rheumatism, muscular and articular. Articular rheumatism may be divided according to its stage of persistence into chronic and acute. Some writers make a third division into the subacute, but I think nearly if not all of the characteristics of articular rheumatism may be described under the heads of acute and chronic stages. When the fever is high, accompanied with local pain and swelling, it is called acute rheumatism or rheumatic fever. Cases presenting local pain, stiffness, impairment of locomotion and persisting a long time, but without fever, are called chronic rheumatism.

Bartholow says there are three types of bodily conformation in rheumatism. *First*, the pale and anæmic. *Second*, the robust and vigorous with an inherited tendency. *Third*, the obese, often given to the consumption of malt liquor and having an acid form of indigestion. The three types are named in the order of their frequency.

Rheumatism is, generally speaking, a disease of youth and early manhood. It rarely commences before the seventh or after the fiftieth year. This rule is far from invariable, for there are cases on record commencing in the first year of infantile life. Rheumatism is more frequent in males than females. Not because men are more susceptible to it than women, but because they are more exposed to the causes producing it. It is rare that we have an opportunity of studying the post-mortem appearances of rheumatism, but when they have been studied the morbid appearances are slight compared with the apparent extent of the mischief. Blood when drawn coagulates rapidly and contains an excess of fibrin. The excess of fibrin sometimes amounts to ten per cent. The articular cartilages are œdematous. The synovial fluid is increased in amount and changed in character. Instead of being an homogenous transparent viscid fluid, it is thin, watery, reddish from extravasated blood, and turbid from the presence of fibrin and pus corpuscles. There is never any considerable amount of blood in the fluid except in patients of a hemorrhagic diathesis. The color of the fluid varies according to the amount of extravasation. Its reaction is alkaline. Albumin and fibrin are found

*Read before the Medical and Surgical Society of Western Illinois, January 13, 1893.

in abundance. Urate of soda is never found. Oedema and hyperæmia of the endocardium and pericardium are local manifestations of a constitutional disease.

The causes of rheumatism are predisposing and exciting. The predisposing causes are, *first,* the inherited tendency. *Second,* Dr. Davis claims long continued physical and mental exertion. *Third,* anything that retards excretion and secretion. *Fourth,* season of the year, as most of the cases occur between December and March. *Fifth,* insufficient or poor quality of food and clothing. *Sixth,* pregnancy and prolonged lactation. *Seventh,* scrofula, phthisis and cancerous affections frequently precede rheumatism. The principal exciting cause is exposure to cold and dampness thus suddenly arresting excretions.

Dr. Loomis claims that excess of sulphur sometimes causes rheumatism, but the most universally accepted theory is that rheumatism is caused by excess of lactic acid in the blood. This has been clinically proven by the fact that patients taking lactic aid for the cure of gout are affected subsequently with rheumatism. It has been proven experimentally by Richardson by injecting lactic acid in the veins of a cat, rheumatism being developed within twenty-four hours. One attack predisposes to another. Articular rheumatism generally comes on suddenly in the night, and with little premonitory symptoms. It is generally ushered in with a chill or chilly sensation; a feeling of general *malaise* with pain, heat and swelling of one or more joints. The initial chill is followed by fever running from 102° to 104°. The patient has thirst, anorexia, a coated tongue, constipation, headache, wakefulness and general uneasiness. At first the large joints are attacked, but subsequently the small ones may be involved. The termination of the febrile symptoms is gradual and not by crisis. The pulse is slower than the temperature would indicate, rarely running above 95. There is generally profuse acid perspiration. Pain is aggravated by motion, and is most apparent in joints not covered by adipose tissue, as the elbows and knees. The urine is scanty, strongly acid, deep-red in color and deposits a great quantity of urates and uric acid. The chlorides are diminished and the sulphates increased. Albumen is present in small quantities. The saliva is said to become acid in reaction. Delirium is sometimes present in severe cases. It is always accompanied with high fever, and sometimes the temperature reaches 109° to 111°. Generally the local symptoms follow the law of parallelism, that is, parallel joints are affected simultaneously—as both elbows, both knees, etc.

In the diagnosis of rheumatism we have to differentiate from pyæmia; the history of the case, the recurrence of chills, and multiple abscesses are diagnostic points and ought to prevent this error. We have to differentiate from gout, but the fact that the small joints are attacked first in gout and last in rheumatism, and that gout is a rare disease in this country and has a history of high living, ought to prevent this mistake. Rheumatism is a disease of early life; gout rarely occurs before the age of thirty-five. Also in gout cutaneous affections are frequent; they are rare in rheumatism. We have to differentiate from arthritis deformans. Here, as in gout, the small joints are attacked first. Arthritis, unlike rheumatism, attacks women more frequently than men. In arthritis there is no fever even in the acute stage. This is a diagnostic point. In rheumatism the local manifestations move from joint to joint; in arthritis they are stationary.

Before closing my remarks on the diagnosis of rheumatism I will call your attention to a disease that we have to differentiate from and that the text-books do not put much stress on, namely, morbus coxarius. I saw one case of morbus coxarius treated for over a year for rheumatism, and have always thought that if the diagnosis had been made sooner the result might have been different, for the patient was a girl and was left a cripple for life. The diagnostic points are: Rheumatism is a disease of early manhood, while morbus coxarius rarely occurs after twelve years of age. In rheumatism the local manifestations are migratory; while in morbus coxarius they are stationary in the hip-joint. Motion is embarrassed in morbus coxarius; not so much so in rheumatism. Rigidity of the muscles about the hip and inability to rest the weight of the body on the affected limb are diagnostic points. Morbus coxarius is always unilateral; rheumatism rarely so. In coxalgia there is no initial chill and but

slight, if any, fever. The psoas iliacus and adductor muscles are in an unusual state of tension, hence the thighs are flexed and foot everted. These are diagnostic points that ought to prevent mistake.

The prognosis of rheumatism is generally good. The mortality is estimated at three per cent. Rheumatism runs an indefinite course. The milder the attack the shorter the duration. The great danger in rheumatism is heart complications. The younger the patient the more liable he is to these complications. Various estimates have been made as to the frequency of heart complications. Some authorities put it at five per cent., others as high as seventy-five per cent. A strange sequelæ of rheumatism sometimes is chorea.

In the treatment of rheumatism there are a great many remedies to choose from. Each authority has a different notion as to how it should be treated. I think different cases require different treatment; but in all cases there are certain indications to meet: *First*, to neutralize the acid that is supposed to cause the trouble. This is done in two different ways, either by the alkaline or the acid treatment. By the alkaline treatment we should give the alkalies, preferably the soda salts until the urine is distinctly alkaline. In the acid treatment we use either the salicylic acid or its salts. The way the acids are supposed to work is by having a stronger affinity for the blood than lactic acid. The blood gives up its lactic acid and appropriates the salicylic acid. The *second* indication is to relieve pain. This is done by opiates, or is sometimes accomplished with antifebrin, but this remedy is not to be pushed too far for it is very depressing. Phenacetine is an excellent remedy in some cases for the relief of the characteristic pains of rheumatism. The *third* indication is to prevent heart complications. To meet this indication the universal verdict is in favor of the ammonia salts, especially the bromide and carbonate. The *fourth* indication is to repair damages and prevent recurrence. To do this keep the secretions and excretions in good working order. To accomplish this, attention must be paid to the skin, kidneys and bowels. To meet this indication the so-called alteratives come into play. There is one remedy in the alterative group that I wish to call especial attention to in the treatment of this disease. It is poke root or phytollacca. I have seen its beneficial effects so often demonstrated as to leave no doubt in my mind that it is a remedy of extraordinary power in rheumatism, especially in the chronic form.

In the weak and anæmic, tincture of the chloride of iron is excellent. Arsenic and potassium iodide are frequently beneficial in chronic rheumatism. Salol is a remedy of remarkable virtue in this disease. In the experimental work that is going on in the coal tar products, there is no doubt but some time we will have rheumatism as completely under our control as an ordinary intermittent fever.

Good Cause for Suicide.

William Harman, a resident of Titusville, Pa., committed suicide a few days ago from a melancholy conviction that he was his own grandfather. Here is a singular letter that he left: "I married a widow who had a grown-up daughter. My father visited our house very often, fell in love with my step daughter and married her. So my father became my son-in-law and my stepdaughter my mother, because she was my father's wife. Some time afterwards my wife had a son; he was my father's brother-in-law and my uncle, for he was the brother of my stepmother. My father's wife—i. e., my stepdaughter—had also a son; he was, of course, my brother, and in the meantime my grandchild, for he was the son of my daughter. My wife was my grandmother, because she was my mother's mother. I was my wife's husband and grandchild at the same time. And as the husband of a person's grandmother is his grandfather, I was my own grandfather." —*Ex.*

They Would Declare the Corpse Dead.

The court of Schleswig-Holstein recently issued the following curious notice: "At the request of Herr Peter Lobmann, of Altona, the seaman Dietrich Lobmann, who was born in Kirchmoor in November, 1848, and was drowned on the journey from Stockton to Hamburg while sailing in the ship Bertha Jenny, is hereby called upon to appear before this court and report himself, on or before Friday, January 20, 1893, at 11 o'clock P. M., under pain of being declared dead."—*Ex.*

SOCIETY REPORTS.

THE MEDICO-CHIRURGICAL SOCIETY, OF LOUISVILLE.

Stated Meeting of Januany 6th, 1893.

THE PRESIDENT, Dr. F. C. Simpson, in the Chair.

EPITHELIOMA: TRAUMATIC EPILEPSY.

DR. W. O. ROBERTS: About the first of October a man fifty-five years of age, German, had his forearm amputated at the University Clinic, for removal of an epithelioma of the hand. Last Tuesday he appeared at the clinic again with a tumor in the axilla on the same side. This morning I removed the growth, cleaning out the axilla thoroughly, leaving nothing except the blood vessels and nerves. I not only removed the tumor, fascia and fat from the axilla, but also the skin which was adherent to the growth. The tumor extended from the floor of the axilla to the apex.

No. 2. There was also at the clinic a man twenty-eight years of age, who, thirteen years ago, was struck on the side of his head with a hoe. A few months after the healing of the wound he began to have dizzy spells and shortly afterward regular epileptic convulsions. The cicatrix left from the wound was exceedingly sensitive and pressure upon the cicatrix he claimed gave him a peculiar sensation in the head. Thinking that possibly this was a case of epilepsy due to imprisonment of a nerve in the cicatrix I removed it and examined carefully for evidence of injury to the bone, but could not discover any. There have been such cases reported. I saw not a great while ago in one of the journals a report of a case where epilepsy was relieved by removal of the cicatricial tissue from a wound of the scalp. I do not take much stock in the theory, still as they have been reported I think that we ought to give these cases the benefit of the doubt and do the operation.

DISCUSSION.

DR. W. L. RODMAN: I saw this patient when he first came to the Clinic in the month of October, for amputation of the hand, and was very much surprised to see him to-day, in the condition that he was, with all of this enlargement beneath and in the axillary space. It seemed to be a case of epithelioma and, from the general condition of the patient at the time, it looked as if it was a very favorable one for operation, and as if he possibly would be relieved for several years as a result of the amputation. The question will naturally come up as to whether these glands were enlarged at the time of the amputation, as it has been such a short time since the operation, but I am pretty well satisfied in my own mind that the glands were not enlarged at the time amputation was done. I made a careful examination at the time and no enlargements could be detected. This was also done by Drs. Yandell and Roberts who performed the operation. The man was very fleshy and possibly there may have been enlarged glands which could not be detected. It is a very interesting and unusual case and teaches us that epithelioma, which we are usually inclined to look upon as the least malignant of all forms of carcinoma—and undoubtedly it is the least malignant save atrophic scirrhus—sometimes runs as rapid and malignant a course as encephaloid. I have no doubt this man will be dead in less than six months. He suffered a twelve-month before operation. Eighteen months is a rapid course for epithelioma in any situation.

As to the second case, I fully agree with Dr. Roberts in the statements he makes. I have seen a great many operations for epilepsy and have never yet seen a single case where the patient was permanently benefitted thereby. There is sometimes relief for a short period as a result of trephining, but in all cases that have come under my observation the paroxysms have returned in less than six months after the operation.

DR. TURNER ANDERSON: From the appearance of the tumor exhibited by Dr. Roberts it seems to me the operation must have been a very thorough one.

DR. W. O. ROBERTS: I simply want to say that I never examined the patient

from whom this tumor was removed, prior to the operation, except last Tuesday, but I know that he was thoroughly examined and as Dr. Rodman says no enlarged glands were detected. He was an exceedingly fat man and, of course, if these glands were located high up in the axilla they would not have been detected. Very frequently in carcinoma of the breast we are unable to detect enlargement of the axillary glands, unless they are of considerable size, until after the axilla has been opened and thoroughly explored, then we wonder why we were not able to detect them before operation. We do have cases of epithelioma followed by encephaloid and the rule is after removal of a malignant growth—it matters not what form of cancer it may be primarily, whether it be epithelioma, scirrhus, or otherwise—the recurrent growths are apt to be encephaloid in character and to be very rapid in their development.

I saw a case not long ago, of a man forty years of age, who had what was supposed to be sciatica, and for this he was treated several weeks. Then there was a change made in his medical attendant and the second doctor discovered a lot of growths about the size of an almond on one of the patient's legs; two or three located between the knee and ankle, one just above the knee, one about the centre of the thigh on the outside of the leg and one in the gluteal region—all on the same side. These growths were exceedingly sensitive to the touch and the man suffered intense pain. At the time I first saw him, about two weeks ago, the growths were very sensitive, and, in addition to those I have mentioned, there were two or three others in the gluteal region. I told the doctor that I was under the impression that these growth were multiple sarcoma, possibly involving the branches of the nerves which caused them to be so exceedingly painful. I saw the man again two or three days ago and several more of these growths had appeared in the gluteal region and one on the tuberiosity of the ischium on that side. We decided to remove one of these growth for the purpose of microscopical examination and I selected the one on the outer side of the thigh; it seemed quite movable and quite hard. I cut down upon it and found it in the body of the vastus externus muscle and soft; it came out in pieces; just as soon as I cut through the muscle it welled out like a broken down neoplasm. From the appearance of the growth I suspected sarcoma; analysis has not yet been made; it was only removed yesterday.

Dr. W. L. Rodman: Do you think these tumors have grown any in the last two weeks? And how long has the patient had them?

Dr. W. O. Roberts: They do not seem to have increased much in size, but have considerably increased in number. I believe they have all appeared within the last eight weeks. There are certain muscles of the leg which are especially liable to sarcomatous deposits. These, if I remember correctly are: the pectineus, sartorius and gluteus muscles. The growth I removed, however, was in the vastus externus. As I say microscopical examination has not yet been made of the growth removed.

Dr. W. L. Rodman: Rare as sarcomas of muscles are, I think that you have such a case. Butlin reports only twenty-one such cases in his work upon malignant disease.

VARICOCELE.

Dr. T. L. McDermott: In assuming the discussion of varicocele, a seemingly surgical subject, some explanation might be proper upon its introduction by a general practitioner. In these, as well as numerous other distinctly operative cases, however, he is the person first consulted and upon his judgment and decision largely depends the final measure adopted for relief. So that the question becomes of paramount importance to the interests of the patient and diverse to those of him intrusted with his management.

The hypochondriasis that accentuates its intensity and in fact first leads the victim to solicit assistance, becomes and remains the leading symptom to invite diagnosis and prompt redress. Such being the case, is it not natural to premise that it opens to the general practitioner a tempting avenue to the administration of treatment for restoring a depleted function, which may require a local surveillance instead of a general cure?

The surgical authorities themselves, are at very wide variance upon the advisability of operative procedure, many contending the interference to be useless and even blameful, others, more sanguine, only op-

erating to relieve the incumbent tension and consequent pain. It becomes then a mooted question whether it is entirely proper or magnanimous for the physician to yield up a patient at the expense frequently of personal vanity and always of pecuniary loss.

The literature of the subject, so far as text books go, is very obscure, and its disquisition entirely inadequate to the magnitude of the issues concerned. Its utility, however, is a matter of unbounded importance, possibly, to the individual concerned, second only to existence itself.

The various morbid conditions of mental deterioration that have found their origin in this, as well as other morbific sequelæ of a sexual impairment, which saps not only the well being but the highest intelligence of pleasurable emotion known to human indulgence, certainly appeals to every scientific endeavor that might encompass its fullest fruition. This phase of the subject is the suggestion of its discussion prompted, in this instance, by a letter from a patient who had recently submitted to the operation with the most gratifying results. In this instance there came to consult me, a bridegroom of a week, on his wedding tour—asking advice and medicines for the restoration of an incompetency which he attributed to early indiscretions. He was utterly disconsolate over his fruitless efforts to accomplish the marital act, and a prey to remorse intense enough to lead him possibly to some desperate rashness. Upon examination I found a varicocele and divining the trouble, advised an operation. It was performed at once, and as I have said before, with the most rapturous success. I shall read his letter written a few months later:

Dr. W. L. Rodman, Louisville, Ky.

Dear Doctor:—Allow me to thank you for your kindness to me, and for the successful manner in which you treated my case. I am entirely well and feel better than for twenty years past. I have gained seven pounds since I came home and my wife seems perfectly happy.

Imagine drowned honor dragged up by its matted locks from any slough of despond you could conjure, and any other simile of tragic lore, but what is the comparison with this belted knight of Venus, springing from the depth of despair, thrice armed and eager for the fray. How different the scene since that bridal morn. The church bell changed its funereal dirge to pæon strains and frisking birds piped roundelays from bush and dell, to greet the gallant groom as he drew near home.

I have another letter from another subject, which I shall also read, bearing the same burden in its tenor and filled with praise:

Dr. W. L. Rodman, Louisville, Ky.

Dear Doctor:—Referring to the operation performed on me for varicocele, will state that I have been much benefitted, as I feel that it is impossible to copulate enough at times. Prior to operation I was passionate at times only, but now I believe I can raise a stake at any time. I feel very much better and stronger since the operation, and am sorry I did not have the work done sooner.

It is useless for me to discuss the causes of varicocele, as they are necessarily obscure. I could only suggest that varicosity might be an idiosyncrasy, as we meet it in individuals of all ages, of good or bad habits, and, in both the symmetrical and ill-formed. This obtains in the limbs as well as scrotum. One peculiarity, however, is evidently due to anatomical configuration, namely, that the seat of varicocele is usually found on the left side. This is due to the spermatic vein emptying into the renal vein instead of the vena cava on that side.

Of the operations, the open dissection of the veins is certainly preferable, in my experience, to Lee's, in which the vein is ligated. Under antisepsis it is almost absolutely safe, and gives little detention even from business affairs.

In a resume of the cases that have come under my observation I incline, strongly to the opinion that, in suitable cases when the testicle is losing its resiliency and becomes softened, the operation should be performed, not only to relieve the distress incident to its dragging weight upon the cord, but also to restore to a lost impulse the franchise of love.

DISCUSSION.

Dr. W. L. Rodman: There has ever been a wide diversity of opinion among medical men as to the causation, pathology and treatment of varicocele. The causation of the disease is usually ascribed, as Dr. McDermott says, to the fact that the spermatic veins on the left side embogue into the left renal vein at a right angle, instead of into the vena cava at an acute angle, as they do upon the right side. This demonstration was first made years ago by my distinguished friend Professor Brinton, of Jefferson College. This anatomical point has not been satisfactory

to all, and there have been many other reasons advanced for the fact that varicocele is so much more common upon the left than the right side. Some claim that it is due to an accumulation of fecal matter in the sigmoid flexure, whereby pressure is made upon the spermatic veins and the return of venous blood prevented. McGraw, a prominent surgeon of Detroit, Mich., read a very interesting paper upon this subject at the last meeting of the American Medical Association, in which he assigned as a cause of varicocele the action of the cremaster muscle. This I do not believe will hold good, as it does not explain the greater frequency of the disease upon the left side. Others have ascribed the occurrence of varicocele to early excesses, etc., etc.

However much we may differ as to the causes of varicocele, there should not be such a contrariety of opinion as to its proper treatment. Many authors do not take a pronounced stand in favor of treating variocele surgically. To me nothing more imperatively calls for operation than an aggravated case of varicocele. Moullin, one of the most recent authors has very pessimistic views upon the subject, and only advises operation in the most extreme cases where there is disintegration of the testicle.

He also greatly magnifies the danger from operation. His personal experience must be limited. I believe there are very few varicocele of any size, which last for five or six years, where there is not a considerably injury done the testicle, and when this can be prevented by so simple and safe an operation, it seems to me that it should be done more frequently than it is. I can very well understand how the older authors argued against operations for varicocele because none of the operations practiced prior to the last five or ten years were an approach to the ideal. Subcutaneous surgery is surgery in the dark. I did very few operations for varicocele until within the last five years, since that time I have done quite a number or them; in the last year I have performed I think on an average about one per month. I feel that it is at times one of the most humane and considerate operations that can be done. Wherever I find there is a well marked swelling or tumor caused by enlarged veins, where I find pain or dragging of the testicle, where there are lumbar pains, etc., whether accompanied by any grave cerebral symptoms or not, I advise early operation. If a man has a simple varicocele and has never worn a suspensory bandage, especially if he be a young subject, I advise him to try a bandage for six months or a year and then, if there is no improvement, I urge operation. Only a few days ago I declined to operate upon a young married man telling him to procure a suspensory bandage and wear it for a year, then if he received no benefit to come to me again and I would operate.

I want to give you the history of the first case referred to by Dr. McDermott: He was a man about thirty-seven years of age, and as the Doctor has stated, he came to his office about a week after he was married. He was referred to me, and when he came to my office I noticed his actions were very peculiar; he came into the room and was very particular to close the door carefully and afterward to look around to be sure that there was no one present; he then slipped up to me and in an undertone remarked: "Doctor, I am a victim." I asked "a victim of what?" To which he replied, "Early excesses." He then said that he had been to see Doctor McDermott who had made an examination and told him that he had a varicocele and advised his consulting me. I made a careful examination and saw that this was a very extreme case. I have seen very few cases where there were such marked mental symptoms, and where there was such prompt and thorough relief by simple operation. He also told me that he had attempted intercourse twice since marriage and had utterly failed; that he was unable to get an erection, but had had one imperfect emission. I sent him to the infirmary and operated the next morning. I told him when he left not to attempt intercourse until the third week after the operation. I did not hear of him until about a month afterward when he came into my office one day, and I never saw greater change in a man's appearance in my life; the first thing he said was, "Doctor, I am all right." I asked him more particularly what he meant by being all right, and he said that he had no trouble and could have intercourse as well as he ever could in his life. I inquired as to the frequency with which he could perform the marital act, and he replied two or three times per week. He had then

been married about two months. We afterward received a letter from him which was read by Dr. McDermott, confirming the assurances he gave in person that he was entirely relieved. The results in this case are certainly very gratifying, and I feel safe in saying that no treatment by electricity or any other means could have brought about the same relief as by operative procedure. In all the cases I have operated upon for Dr. McDermott in the last six or seven years, four of which have occurred in the past year, I can conscientiously say, and he will bear me out in the statement, there has not been a single one of them that has not been entirely relieved. They have not only presented the appearance to me of being relieved, but each one has assured me that he felt perfectly well in every respect. I do not know that I have ever done a varicocele operation where the results were not all that could be expected. In certainly twenty or thirty operations of this character that I have performed in the last two years, I only call to mind one case where the patient claimed that he was not relieved, and yet all the facts in the case tend to prove that he was entirely cured. Three or four years ago a young man was brought to me by a physician of Lawrenceburg, with a varicocele on the left side. I operated upon him at the St. Joseph's Infirmary, and he remained there about two weeks. I thought he was entirely relieved of the trouble; in fact he said so himself. He went home and I heard nothing more from him until I sent him my bill, which he declined to pay, stating that he had not been cured and for that reason refused to pay the bill. However, I learned through his physician, who examined him, that he was entirely cured, and I am certain that he was. He married, which is a confirmation of it, in less than six months after the operation, and has two children now. I believe that the modern operation of excision, removal of about an inch of the veins and suturing the stumps together accurately so as to lift the testicle up, is the ideal operation. And I cannot agree that there is any danger in it, as some authorities would have it appear, as I have never in my own experience seen a single untoward symptom. I have only seen one case of orchitis following varicocele operation and that was in one of my earlier operations. As I have said no unfavorable symptom has occurred since I have practiced the open method as described above. I rarely see suppuration. I prefer iron-dyed silk for suturing the veins.

Dr. T. S. Bullock: I have enjoyed Dr. McDermott's paper very much, and can testify to the extreme nature and frequency of this trouble. I would like to say a word or two in regard to the causation: I have always thought varicocele in part was due to the frequent excitement of sexual sentiment without gratification. I believe that there are very few young men who remain unmarried for any great length of time, and have not unusual facilities for sexual pleasures, that escape without varicocele.

Dr. W. O. Roberts: I have very little to add to what has already been said with reference to this subject. Varicocele is an exceedingly common affection, and it occurs in the young as well as the old. There is no doubt that in young subjects the disease sometimes passes away under appropriate treatment; after adult age, however, I do not believe that it ever goes away. As to the cause of the disease, it has been attributed, as Dr. Rodman says, to quite a number of things. It rarely ever occurs on the right side. I notice that in Agnew's examination of thirty thousand troops he never discovered a well marked case on the right side. Cooper, Marshall and others also report not having found a single well marked case on the right side. It does, however, sometimes occur, and occasionally in the same subject on both sides. I have, during the past three months, had a case of this kind in which I operated first on the left side and two months after operated on the right side. As to the indications for operation—I think that we are justified in advising it when we find cases of varicocele of long-standing, where there is evidence of wasting of the testicle, where the patient suffers from dragging pains in the loins, and where we want to operate for the purpose of relieving the mental condition which it gives rise to in a great many instances. There are many cases, however, of large varicocele in men who understand it, you might say who are not frightened by it, where it does not seem to affect their virile power in the least. Still in these cases, where there is evidence of wasting of the testicle, I think operation should be advised.

As to the different methods of perform-

ing the operation, between the subcutaneous and the open method, I strongly favor the open method. I have done every operation that has ever been advised for varicocele, excepting one, viz: the removal of a large section of the scrotum for the purpose of making a natural suspensory. In former years I did, as Dr. Rodman says he has done, the subcutaneous operation. I have long since, however, given it up. In these cases I find that the patient very frequently suffers from a neuralgic condition of the cord, which continues for months and months. I have seen follow these operations abscesses which, of course, must have been due to want of proper aseptic precautions. The open method I think is decidedly the safer procedure. It is an exceedingly simple operation, and is one which can be done under anæsthesia; the others cannot. When subcutaneous ligatures are applied, you want to have the veins distended so that you can discover them. In doing this operation I make a free incision over the cord and expose the veins. I always remove a large section of the veins, an inch or more, and then bring the stumps together. The method mentioned by Dr. Rodman is an excellent one. After ligation of the veins above and below the central portion is removed, then the ends are brought together and stitched, which brings the testicle well up. I have performed the operation in this way a number of times with the most happy results. Recently I have been following the method advised in *The American Text Book of Surgery*, which is as follows: The veins are exposed but not separated from the fascia surrounding them and holding them together; the vas with its venous plexus is recognized and avoided. An aneurysm needle threaded with catgut is then passed under the vein at the upper end of the incision and again at the lower end; the ligatures are tied and in each instance left with one long end, the intermediate portion of the veins is then cut out with scissors and the stumps are brought into apposition and held by tying the ligature together. This method like that of stitching the stumps together, raises the testis to a higher level and results in shortening the scrotum on that side.

Since I adopted the open method of treatment for varicocele, I have met with only one case in which I had any trouble. That case was in a dissipated man, and the varicose veins and scrotum were very large and the testicle very small. Following the operation there was suppuration and, while it was not excessive, it continued for some little time; but there was no sloughing noticed and the man finally got well. I saw nothing more of him for a year; he came into my office the other day and asked me to examine him; I did so and found that the testicle on that side was gone entirely.

Dr. Turner Anderson: I would like to inquire how the circulation is kept up after removal of a portion of these veins; I should think there would be great danger of atrophy of the testicle.

Dr. W. L. Rodman: I fully agree with what Dr. Roberts has said in regard to double varicocele, and was a little surprised to hear him quote Agnew as having stated that there was not a single case occurring on the right side. I have seen two cases of double varicocele in the last six months. The man who wrote the first letter read by Dr. McDermott had a very small varicocele on the right side, but it was not operated upon owing to its size, and it was evidently the one on the left side that was giving him the most trouble. I operated upon a man at the city hospital about three months ago who also had double varicocele, and I do not think it is as uncommon as has been reported. Another point that might be mentioned in this connection is that men with varicocele are not accepted either in the Army or Navy. One reason why the modern operation for varicocele is so much better than the old subcutaneous method is, that in the subcutaneous operation you can never tell just exactly what structures you are embracing in the ligature, but with the open method you can see just what you are doing.

Dr. Anderson's question is very easily answered. It is only the the superficial veins that are enlarged in varicocele, and there are a number of smaller veins that are situated deeper, that are sufficient to carry on the circulation. That these deeper veins are sufficient to carry on the circulation is shown by the fact that they may so enlarge as to necessitate a second operation. In the ordinary operation only the superficial veins or "pampiniform plexus" are removed. Relapses are rare.

Dr. T. L. McDermott: In all these cases that I have had with Dr. Rodman, I have noticed that the testicle was always smaller on the side on which the varicocele occurred; the testicle seeming to be very much shrunken, in some cases exceedingly so. I think the operation clearly justifiable when such happy results can be accomplished as those stated in the paper read this evening. There is very little information in the text books concerning operations for this trouble, and I believe if more were known of the benefits to be derived from so simple an operation, if people would look into it more, the operation would meet with more general favor.

CORRESPONDENCE.

NEW YORK LETTER.*

About four months ago the New York Academy of Medicine appointed a committee consisting of Drs. Janeway, Jacobi, Prudden, A. L. Loomis, Hamilton, Stephen Smith and R. H. Derby for the purpose of investigating the condition of New York quarantine as well as to ascertain the desirability of establishing a National quarantine. This committee represents the brainiest medical men in the city, and their decision is accepted as conclusive by the mass of New York practitioners.

At a special meeting held at the Academy last week the committee reported the result of its investigations. The members found the quarantine system of this port in a condition wholly incompetent to efficiently protect the citizens against infection from cholera, and that what facilities did exist in the way of extirpating the dread disease, were not satisfactorily utilized by the officers in charge. The members of the committee fear that unless a radical change is immediately made in the quarantine affairs of this port cholera will obtain a foot-hold in our city in the spring. They urged the necessity of the establishment of a National quarantine as the best way to solve the ominous question; claiming that in a National quarantine there would be uniformity and system; international aid would be obtained through our consuls; that well-trained men and better material would be more easily obtained, and that local politicians not unwilling to sacrifice public health to personal emolument would be replaced by men of ability and honor.

The committee regarded the scenes of last autumn a disgrace to the city and could see no way in which a similar scene would not be repeated in the spring other than by the establishment of a National quarantine. The report is a lengthy and scholarly article and if Congress attend to the matter in the way recommended by these famous physicians it is highly probable that Asiatic cholera will not obtain a foot-hold in New York.

***

In a recent lecture, Dr. H. M. Biggs, Professor of Materia Medica at the Bellevue Medical College, reported the results of observations taken during a four week's stay at Carlsbad last summer. He said that although Carlsbad was undoubtedly the most popular health resort in the world, it did not owe its fame to any peculiar constituents of the much lauded waters.

He found that about forty thousand patients go there annually and take a course of treatment lasting from four to six weeks. The most prominent diseases found among the patients are gout, rheumatism, gastro-intestinal catarrh from alcoholism or over-feeding, and disease of the liver and kidneys. An examination of the Carlsbad water showed that it owed its efficacy to sulphate of soda, of which it contains a large amount, sulphate of magnesia, sodium chloride, alkaline carbonates and carbonic acid gas in solution. The main part of the treatment consists in the regulation of the diet and habits, and upon this feature of the course the success of Carlsbad depends. The waters are taken early in the morning, from six to eight o'clock. As many

*Special Correspondent to The Medical and Surgical Reporter.

as four thousand people may be seen walking in the vicinity of the springs. The water is taken, a small glass at a time, every fifteen minutes, the patient meanwhile taking moderate exercise, and this drinking is kept up for two hours. After the last drink the patient walks steadily for an hour or more, the time depending on his strength. After a few days at the resort this exercise can be easily taken without the desire for food or rest. About nine the patient returns to his hotel for breakfast having had nothing to eat before this time. Breakfast consists of a cup of coffee, a roll and a couple of soft boiled eggs. For dinner is served one vegetable, soup, a small piece of roast meat and a half pint bottle of Bohemian red wine. During the afternoon the patient drinks more water from the springs and takes more exercise. Supper at six consists of a cup of tea, a small piece of roast beef, one vegetable and perhaps a little oat meal. All pastry, sugar, salads and fruits of all kind are entirely shut off from the patient. All patients must retire at nine o'clock.

The results of this plan of treatment is often striking. Better results in cases of diabetes are obtained here than in any place in the world. Excellent results are obtained in patients suffering from gastro-intestinal disorders. Many people with gouty, diabetic, or lithemic diatheses visit the spring and take a course every year. Their symptoms are so improved that they were enabled to lead their customary sedentary life the rest of the year.

Professor Biggs is a close observer and made thorough examinations, and it is his belief that there is no peculiar efficacy in the water of the Carlsbad springs; that the medical properties of the mineral waters found at most of the health resorts in this country are equally potent to those found in the Carlsbad waters; that the good results obtained come mostly from the restricted and simple diet, the exercise, the freedom from care and the cessation of injurious habits. The only features peculiar to Carlsbad are the traditions which attend it and the large number of people who go there.

THE ADVANCE GUARD.

Editor Med. and Surg. Reporter:

In the pending discussion between those who assume to represent conservatism and radicalism, respectively, the idea that there can be any middle ground on the subject, or any other than that represented by the extremes, seems to be lost sight of entirely.

It is assumed that conservatives are always conservative, and that so-called radicals are always radical, which idea works great injury to the progress of medical science. But if you accept that part of the definition for conservatism given in the issue of December 24th, which refers to preserving from innovation we will take radicalism every time. To quote again from your correspondent whom, for the sake of brevity, I will refer to as "Conservative." He says "the conservative is the fellow who wants to know before he acts." To reach which point of vantage one must indeed be a very Solon or phenomenon of learning, or else must manifest a large part of his time a position of imposing masterly inactivity. Which latter quality I once heard a prominent and elderly professional man speak of as one of great importance in professional life. Again, "the conservative is the man who has not only seen many theories die out, old treatment set aside, but new theories wither, new treatment fizzle, etc."

I must say, as much as we all deprecate unguarded and irresponsible action in any profession or science, yet does not any one respect an enthusiast more, who occasionally goes wrong, than the man or woman who stands by "masterly inactive" waiting for somebody else to work out the problems of life and science, and then appropriates the results of their successes and failures to his own great and wondrous credit, vaunting himself as one who is always right because he has not enterprise to go either right or wrong upon his own responsibility?

Are the causes of life and death so sacred and inviolable that they shall not be followed to the inner sanctuary?

Is it proved that the men who represent the so-called radicals in surgery—the men who have done more to advance surgery

in the past ten years than the efforts of previous centuries—are any the less impressed with the sacredness of life or the responsibility of their work? On the contrary it is they who carry the responsibility of almost the whole profession. Their load is such as the dull expectant never dreams of, and for reward they often get only obloquy and abuse. Every man who is not content with watching old theories die out, old treatment set aside, is looked on with suspicion and is considered a rampant radical, quack, or, as a climax to all injurious epithets, he is branded as a *specialist* which is supposed to fill the measure of all opprobious terms. And this, notwithstanding the fact that almost every advance of any importance in surgery or medicine, has been a radical step away from some preconceived conservative notion. Medical science originally was a system of baseless theories, bolstered up with specious reasoning and unintelligible vocabulary.

The day is at hand, and even now is, when in place of that we shall have an exact science and a intelligible reason for all things.

And the more specialists we have—be they chemists, physiologists, pathologists or surgeons, by whatever name they are known, be they German, English, French, or American—the better. And, however, many hobbies they may ride, one with his *baccillus tuberculosis* and it antidote *tuberculin*; another with his experiments in hydrophobia and anthrax; another with his listerism and antisepsis, the better for the ultimate result. There is some good in all of them. Because, whatever the ultimate result may be, their reasoning does not start from baseless assumptions, and through patient and arduous laboratory work performed not for selfish ends do they accumulate useful information, which, as was said before, is often appropriated by idle beings, who at one time were ready to abuse and accuse of lying, hypocrisy and simplicity those who, at the expense of much time, labor and pains, have contributed to their stores.

All honor to the searchers after truth in whatever line or direction it may be. And all honor to our American surgeons and practisers of the art of healing for they lead the world at this present day. And their position is not one gained by contentedly standing in the old ranks, pouring over ponderous tomes and argumentative discourses, but by each and every one jostling his fellows, striving for the front rank and to keep at the head of the profession.

As one of our Philadelphia confreres has so aptly said: "It is not so much a ponderous dignity and sick room air that we need, but to know what to do, when to do it and how to do it."

The time has gone by for much abstract theorizing in medical science, but we recognize more and more material agencies, material causes and more and more ought we to get mathematical results. The study of medicine is largely the study of materialism, and that is said to be the reason so many of its votaries become materialists, but such a result is not natural and to the right thinking person the more one studies materialism in the human body the more ought he to grow in spiritual faith.

W. H. Burr, M. D.,
216 W. 9th St., Wilmington, Del.

Rational Treatment of Puerperal Septic Infection.

Dr. J. L. Rothrock (*Northwestern Lancet*) says:

Puerperal infection is caused by two widely different groups of bacteria, which must be distinguished since they necessitate different plans of treatment.

In infection by the pathogenic group of bacteria, local treatment is of little avail, unless instituted early, and it should be vigorously and systematically carried out, even at the risk of being superfluous.

The curette should not be used except in the early stages.

When infection is localized to the uterus and adnexa, recovery is the rule, and tonic and supporting treatment the indications.

If suppuration ensues, the abscess should be drained as soon as the diagnosis can be made with certainty.

Most cases of peritonitis which recover by the expectant plan of treatment are localized.

In sthenic cases of peritonitis, surgical interference is not only justifiable but the rational mode of treatment.—*Am. Lan.*

It takes 4,000 pounds of fresh rose petals to produce 1 pound of attar of rose, or 250 pounds for 1 ounce.

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SATURDAY, FEBRUARY 11TH, 1893.

EDITORIAL.

INNOCENTS ABROAD.

For a long time it was considered 'quite the thing' for the young American physician to feel that life had been a miserable failure until a European trip and a course of study at Vienna had crowned a period of severe, industrious and painstaking work at home.

The diploma from the University of Pennsylvania, from Jefferson or Harvard, was but an ink-splotched and ribbon-bedizzened rag, whose Latin hieroglyphics merely served to remind him of the ponies which, in college days, he rode through classic fields; or, more likely still, to emphasize the fact that he had had no college days, but that his education, like Topsy, "had jis growed." His soul thirsted for the rathskellers of Deutschland and his sandaled feet, metaphorically speaking, unconsciously aligned themselves at right angles to the Atlantic Ocean. It was forgotten that of the greatest physicians and surgeons of this country, few ever saw a foreign city or heard a foreign teacher till fame had heralded them for many years; and, that when they did go abroad they went as honored guests and not as callow students.

In former days a course of study in a trans-atlantic medical center may have added much to both reputation and resource; for clinical instruction was long systematized in European capitals ere, in America, the didactic lecture ceased to be the sole reliance of both teacher and taught.

While clinical teaching is not the basis of *all medical knowledge*, it is the warp and woof of all that is valuable in finishing the practical part of a medical and surgical education. A physician without clinical training, is like a book-made soldier who, while coming to a conclusion according to the latest and most approved authorities, is promptly vanquished by the enemy.

The superior advantages of a European course in practical medicine are no longer visible to the naked-eye, but the mania for foreign titles and foreign degrees has not yet died out. Hordes of American students every year migrate across the At-

lantic seeking diligently to "gild refined gold or paint the lilly," by sitting at the feet of some stupid privat-docent. Fondly imagining that the ancient history they pay so much to hear is a message from on high, which they are the favored ones to carry back to their benighted countrymen. Countrymen, who have either had too much sense, or have been too poor to reap the rich and abundant harvest of wisdom vouchsafed only to those who have been fortunate enough to puff at a meerschaum 'unter den Linden.'

There is some excuse for one, who, attracted by the marvelous results and the wonderful, almost poetic skill of a man like Lawson Tait, wishes to catch a glimpse of the man and of his work. For Lawson Tait is a genius, an iconoclast and a teacher for the ages, a great land mark of his time. It is the running after a set of men whose published statistics show them to be operators inferior even to the average in this country, that fixes the crown of Bottom on the tender brow of innocence.

It is time the world knew, and that all Americans should recognize the fact that surgeons are working right here in Philadelphia, whose skill is unequaled, whose results have never been surpassed, and whose works cannot be duplicated by any man or set of men in Europe. The professional latch-string of these men hangs outside and may be pulled by any deserving man at a moment's notice.

If it is special schools that the young or the old graduate sighs for, surely the polyclinics and the special hospitals of New York and Philadelphia can furnish instruction so varied and material so abundant that the most industrious and ambitious can neither observe nor in any manner utilize it all.

Let American students conquer what we have, before they sigh, Alexander like, for other worlds.

There is no room for snobbery in medicine. A truth developed, a method evolved, a remedy discovered, a disease conquered, or a doctrine put forth in America should produce as profound an impression upon us as if its author enjoyed the delights of existence upon the banks of the Rhine, the Seine, or the Thames.

Truth is universal and knowledge makes the whole world akin. Provincialism is narrow and science is independent of patriotism, yet a decent regard for one's own country and the achievements of one's own countrymen is at all times a laudable spirit. To worship at foreign shrines just *because* they are *foreign* is a more detestable spirit than that mole-eyed selfishness which sees nothing good, hears nothing worthy, and says nothing commendable of any thing or person outside of its own narrow horizon.

The study of medicine should be pursued for the love of truth and for the good of humanity. The desire to shine by borrowed light is a spirit as foreign to the true student's mind, as is a spirit that can see an element of the ludicrous in the maimed and distorted bodies thronging the waiting rooms of physicians, seeking relief from hideous disease and pain.

He who pursues science because he would store his mind with great truths, who has sought admission to the ranks of a great profession because he feels more at home ministering to the unfortunate and the stricken, need go no further than to the metropolis of our own country to see, to hear and to acquire all that can be learned anywhere.

Savings for Servants.

In Germany every servant girl is obliged to own a little blank book for stamps. Once a week the mistress pastes in the book a two-penny-half-penny stamp, which is purchased from the government. When the girl gets old, or should she fall ill, the stamps are redeemed by the government, so that the girl has a small sickness or old age fund. This custom was ordered by the Emperor about two years ago.—*Ex.*

TRANSLATIONS.

Theory of the Phagocytes.

Metchnikoff (*Le Bulletin Medical*, Jan. 22d,) contributes an article on the theory of the phagocytes. He says these cells, that are capable of surrounding foreign bodies by means of active movements, are denominated phagocytes. Sometimes the entire individual is a phagocyte, capable of enclosing the foreign bodies; such are among the protozoans, the amebæ, the rhizopods, and the majority of the infusoria. In certain inferior animals—the sponges for example—the majority of the cells only are phagocytic. The question now arises, in the vertebrates, the mammiferæ, man, which are the cellular elements capable of manifesting these properties? These elements may be divided into two great groups according as to whether they are mobile or immobile. The *mobile* elements, the most numerous, are confounded with the leucocytes from which they must be distinguished.

The smallest leucocytes, the lymphocytes, which scarcely have the dimensions of the red corpuscles, have a large nucleus which the basic aniline colors stain with great intensity, and very little protoplasm which stains to a much less degree than the nucleus. These are found in large numbers in ganglia, in the corpuscles of the spleen and in the marrow of bone. They appear to be the young stage of leucocytes.

The mononuclear leucocytes, properly so-called, are distinguished from the preceding by large size and method of coloring; their protoplasm, abundant, is pretty well stained by the basic colors; their nuclei, rich in nuclear juice, take a color less pronounced than the nuclei of the lymphocytes; also the difference between the nucleus and the protoplasm is less marked. The nucleus, single, is often oval, may be lobulated and frequently reniform. These two categories only represent a small part of the leucocytes, about twenty per cent. in human blood. The great majority is formed by the polynuclear leucocytes (Ehrlich.) These are round or ameboid cells presenting a lobulated nucleus, but nearly always single: it is very rarely that they are truely polynuclear. In fact, the nucleus is composed of several lobes united by filaments often extremely minute. These lobes are at times so numerous that the nucleus presents in its entirety the appearance of a mulberry. A very frequent form is the trefoil; at times rays unite all the lobes. The aniline basic colors stain all of the nuclei with great intensity, which resemble, in this respect, those of the lymphocytes. They contain a great deal of chromatic substance and very little nuclear juice. The protoplasm stains very feebly, often not at all, with the basic colors, differing thus from that of the two preceding groups. These polynuclear leucocytes represent 70 to 75 per cent. of the leucocytes. There still remains five per cent. of white corpuscles, represented by those which resemble at times the mononuclear and at times the polynuclear leucocytes, but differ from them in the special staining of the granules which fill the protoplasm. The most of these are represented by the eosinophile leucocytes, the remainder by the cells of Ehrlich.

Ehrlich's cells have their protoplasm filled with granulations which are only colored by the basic coloring matters. These granulations, round, of variable dimensions, have often been confounded with cocci. They may be distinguished by the colorless space in the centre of the mass, which represents the nucleus of the cells incapable of taking any stain. These leucocytes are extremely rare. They are especially found in pathological connective tissues. Some, for instance, in the spleen; they are very numerous in the lymph.

The eosinophile leucocytes have an oval or lobulated nucleus—thus analogous to those of the polynuclear—which is well stained by the aniline colors. With no basic color whatever are the granulations stained, even feebly. It is of no consequence what acid color, on the contrary, may be used, however diluted, but the granulations are very strongly stained and fill nearly the entire cell, leaving very little room for the protoplasm. The eosinophile leucocytes are always found in the blood of vertebrates. They sometimes have an elongated form, sometimes a crys-

†Translated for THE MEDICAL AND SURGICAL REPORTER by W. A. N. Dorland, M. D.

talline appearance, particularly in certain reptiles and birds. They represent four or five per cent. of the white corpuscles of the blood and are especially prevalent in the marrow of bone.

In certain animal species, the rabbit and the wolf for example, but never in man, cells are found with granulations stained by eosine, which have been confounded with eosinophile leucocytes. Their granulations are smaller and in much smaller number, rarely filling the entire cell. These granules also take the basic colors, which is never done by the true eosinophile leucocytes. These cells have been denominated pseudo-eosinophile or amphophile. To distinguish them care should be taken not to leave the preparation a long time in the basic bath. In man, who has not these amphophile cells, a variety is found, without doubt corresponding, with granulations which are only colored by an acid and basic mixture; they are the neutrophiles.

In several species of mammiferæ—in the dog among others—no species of cells with granulations is found; it may be that they exist, but that the method of coloring them has not yet been discovered.

Which of these classes present phagocytic properties? Neither the lymphocytes, nor the eosinophiles, nor the cells of Ehrlich ever contains, in spite of their ameboid movements, foreign bodies, a truth which proves, it may be said in passing, that the pretended viscosity of the ameboid cells is not the cause of the encircling. Only the mononuclear, the polynuclear, the amphophiles and the neutrophiles enclose foreign bodies. According to the case, it is the one or the other category which plays the principle role.

In studying tubercle we have seen along side of the white corpuscles equally capable with them of enclosing foreign bodies, some immovable cells—the endothelial cells of vessels and nervous membranes—which present great analogies to them. Their protoplasm is stained by the basic colors as well as their nuclei, in which the nuclear juice is very abundant. When these cells are detached from the vessel walls and carried into the blood current, they are often difficult to distinguish from the leucocytes.

The analogies between these different groups of cells with large nuclei, single, are so great that they have been united under the general name of macrophages, reserving that of microphages for white polynuclear globules capable of surrounding foreign bodies. All of these phagocytic cells present the common characteristic of being derived from the mesoderm. In the muscular and nervous tissues there are other fixed phagocytic elements more specialized. In the muscular fascicles it is not the myoplasm, but only the interstitial substance or sarcoplasm, which fills the phagocytic function; as may be noticed in certain pathological cases, where the sarcoplasm, forming a large number of buds, surrounds, destroys, digests the myoplasm. The cells of nervous ganglia also manifest phagocytic properties and, it is probable that the cells of the neuroglia also have analogous properties.

What relations have these phagocytes with the micro-organisms? The phagocytes are endowed with a certain sensibility denominated chimiotaxia. They discriminate between foreign bodies and do not encircle them indifferently. Especially is this manifested towards various bodies in solution, and above all towards substances of bacteric origin. If, after the introduction of microbes in o the organism, there is produced at first a considerable leucocytosis, and if the leucocytes direct themselves in large numbers towards the point of introduction, it is said that there is a positive chimiotaxia. If, on the contrary, the number of the white corpuscles diminishes, and if, at the point of introduction there is formed a simple serous exudate without leucocytes, it is said that there is a negative chimiotaxia. The more receptive an organism is the more is the negative chimiotaxia manifested; the more refractory an organism is, the more is the positive chimiotaxia noted. If by vaccination a very sensitive aninal is transformed into a refractory, the chimiotaxia, at first negative, becomes positive.

The encircling of microbes by the leucocytes is an active protoplasmic act and not simply mechanical due to a pretended viscosity of the protoplasm. It is a physiological act on the part of the leucocytes and not on the part of the microbes. Metchnikoff has seen a very mobile spirilla in relapsing fever unable to introduce itself into the globules. The process then

may be compared to an intra-cellular digestion, and in the process a difference in the method of fixation of the colors may be seen. The microbe, at first quite colorless, colors all at once with a great intensity, a proof of its death; then, little by little, the color disappears until it finally disappears entirely. Therefore the phagocytes surround and digest the microbes. If some leucocytes enclosing microbes are transported to a drop of nutritive substance, in a little while the leucocytes die, while the microbes, finding a favorable medium for their development, multiply in the interior of the phagocytic cell. Very soon this is filled, the peripheral protoplasmic bed is traversed and the microbes diffuse throughout the liquid. This is proof incontestible that the microbes have been encircled while living. The tubercle bacillus is distinguished by its great resisting power to this action. It is surrounded; sometimes it may be digested, but more often it resists, ends even by destroying the cell, and then is able to invade the organism.

The spores of the bacteria often resist the destructive action. Sometimes they may be digested, as, for example, those of the bacillus of tetanus. But more often they are not affected, the bacilli themselves being destroyed. This shows that in certain cases the phagocytes are protectors and not in others. This clearly demonstrates that it is the cellular elements, the phagocytes, which retard invasion and not the liquids of the organism. The principle method of defense of the organism then is the phagocytic action. Perhaps there may be other methods; it is very probable. At any rate it seems to be very clearly demonstrated that this protective power should not be ascribed to the humors of the body, which in general, and even in protected individuals, are an excellent medium of culture.

Radical Operation for Umbilical Hernia.*

R. Condamin., (*Arch. prov. de Chir. T. I.*, p. 193). The tendency of umbilical hernia to become larger or to produce pain of often a functional or sympathetic character, together with the difficulty or impossibility of keeping in place by bandages, makes it necessary to study carefully the technique of radical operation. C. has found it more satisfactory to make a total extirpation of the umbilicus, to freshen the inner marginal sheathes of both recti, and uniting the abdominal wound by three rows of sutures. The first unites the peritoneum, the second (which is of the greater importance) unites the two opposite leaflets of the recti. The third unites the skin.

In order to insure close apposition of the various parts, he recommends placing a silver suture deep in both angles of the wound.

*Translated for THE MEDICAL AND SURGICAL REPORTER, by Marie B. Werner, M. D.

Peptonuria in General Paralytics.†

The greatest discord as to the pathology of peptonuria exists among alienists as well as among practitioners. In general paralysis, Maccabruni has only seen it four times in forty-five patients. Marro found it in every instance in twenty-two patients. Fronda has had under observation seventeen paralytics and has made twenty-eight analyses of the total urine of the twenty-four hours; three times the peptonuria was not found at one or two analyses, but was noticed subsequently. A fact worthy of note is that it was not present once during a period of excitation but appeared during a period of calm. This is contrary to the usual hypothesis, according to which it should be produced and eliminated more during cerebal activity.—R. Fronda,(*Il Manicomia Moderno*, Anno VII, No. 1, 1892, pp. 1 to 18.

Not Deserving of Recognition.

"By the way," said the gentlemanly looking person in the black broadcloth suit, "if you mention my name in connection with the accident you may say that 'Dr. Swankem was called and the fractured arm was suitably bandaged,' or something to that effect. Please spell the name correctly. Here's my card."

"Thanks," said the reporter, looking at the card. "You are next door to Dr. Rybold, I believe. Are you acquainted with him?"

"No, sir," replied Dr. Swankem, stiffly. "We do not recognize Dr. Rybold as a member of the profession. He advertises."

†Translated for MEDICAL AND SURGICAL REPORTER, by W. A. N. Dorland, M. D.

BACTERIOLOGICAL NOTES.

The Growth of Bacteria through the Pasteur-Chamberland Filter.

The fact has been asserted for a considerable time that the Pasteur-Chamberland filter was not proof against bacteria. This was disappointing as it was hoped by all, and believed by many, that the Pasteur filter would remove all organic, as well as inorganic, material from the water which passed through it. Several tests have been devised for proving the passage of bacteria through the *bougie* of the filter. Smith and Moore (*Centralblatt f. Bakteriologie Parasitenkund* xii., 1892, p. 628) describe an extremely simple method. A bougie from an ordinary Pasteur filter is inverted in a large glass tube the top of which is plugged, about the bougie, with cotton. It is then sterilized by dry heat. A culture of the germ to be tested, which has grown for a few hours only, is transferred to the tube by means of a sterilized pipette. By means of air pressure a portion of the liquid is forced through the bougie into the tube. The filtered liquid is perfectly clear. The entire apparatus is then placed in an incubator. The filtered culture liquid in the tube will remain clear until it is rendered turbid by the multiplication of bacteria which have grown through the walls of the *bougie*. The authors found that the hog cholera germ would grow through the tube in from five to ten days. The experiments made were sufficient to show that the pores in the tubes are large enough to admit of the passage of bacteria the size of the cholera spirillum or the typhoid bacillus. They also show that there is a difference in the pores of different tubes. [These facts confirm in a measure the statement of M. Dujardin-Beaumetz that, "filters are of no use whatever, and thus another cherished illusion is likely to disappear." The fact should be borne in mind that, thus far, there has been no filter devised that is capable of turning out water "germ free" after it has been in use for a considerable time. The only safe and reliable method of obtaining wholesome drinking water is, if the water is cloudy from holding earth in suspension, to filter it to remove the dirt, boil it to destroy the bacteria and keep it until used in a sterilized vessel placed in a refrigerator. This is important at all times, but more especially during the coming season when cholera may dangerously contaminate the water supplies in many sections of our county.—Ed.]

The Micrococcus Lanceolatus, with special reference to the Etiology of Acute Lobar Pneumonia.

Prof. Welch (*Bulletin of the Johns Hopkins Hospital*, iii, 1892, p. 125) has begun a series of articles on the etiology of lobar pneumonia which will be welcomed by all physicians. The first part consists of a review of the discovery of the germ by different investigators, and an exhaustive discussion of its morphology, biology and effect upon experimental animals. A complete list of the synonyms is also given. *Micrococcus lanceolatus* is preferred from the fact that the names, pneumo-coccus, micrococcus pneumoniæ cruposæ, and diplococcus pneumoniæ suggest an exclusive relationship of the organism to acute croupous pneumonia, whereas this same organism is concerned in the causation of cerebro-spinal meningitis and many other affections independent of pneumonia. The germ was first discovered by Sternberg in 1880, by inoculating rabbits with his own saliva. It was next found by Pasteur three months later. Within the next few years the germ was discovered and named by a large number of investigator. It was found not only in the sputum but in lungs affected with croupous pneumonia. The two discoverers whose names are most frequently associated with the germ of pneumonia are Friedländer and Fraenkel. Friedländer's pneumo-coccus, however, has not been demonstrated as bearing any relation to pneumonia whatever. Morphologically the micrococcus lanceolatus is an oval organism with one end somewhat smaller and more tapering than the other. In cultures oval and frequently spherical forms can be found. The average length of the germ is about 1–1.5 *m* its thickness from ⅓ to ½ that of its length. Its typical form is transitional between a coccus and a bacillus. By Flügge it is called a bacillus, and Beck, of Koch's Institute, calls it the diplo-bacillus of Fraenkel. The author retains the name micrococcus

instead of bacillus on account of the customary usage. The cocci are arranged in pairs usually, frequently in short chains.

Welch found that from cultures of typical diplococci he could sometimes obtain, in later generations, non-virulent streptococci which could not be distinguished from some cultures of the streptococcus pyogenes. If this germ of pneumonia occurs under natural conditions in similar chains there seems to be no way of separating it from some other varieties of streptococci. As an aid to diagnosis there are three characters which, if carefully observed, may render the identity of the germ reasonably certain when it is examined in cover-glass preparations made from the tissue, these are: (1) the lanceolate shape; (2) the paired arrangement; and (3) the presence of a capsule surrounding the organism. The capsule can be demonstrated around the germs growing in the tissues and liquids of the animal body. The capsule is frequently demonstrated when the germs have been developed on blood serum and agar and in milk and bouillon. Welch found that degeneration and involution forms of the micrococcus lanceolatus were common in cultures and in the animal body especially in old inflammatory exudates. The most interesting of these forms were empty capsules and capsules containing feebly or unstained cocci, or deeply stained particles in stained preparations.

The micrococcus lanceolatus grows best at a temperature about that of the human body. It can be cultivated on all of the ordinary culture media. Gelatine is not well adapted for obtaining the first cultures, as the growth is not sure at a temperature below its melting point. Slight variations in the composition of the media or its chemical reaction will often deter and frequently check the development of cultures. The media should be feebly alkaline. It does not liquify gelatine; milk is usually soured and coagulated; a small quantity of acid is produced in bouillon; no growth or a faint grayish growth on potatoes; it is faculative anærobic growing without as well as with the presence of oxygen. The maximum development in cultures, at the body temperature, is attained in twenty-four hours or less.

The virulence of the pneumonia germ is variable. Cultures were obtained that were devoid of any virulence. They were also obtained so virulent that a very small quantity was capable of killing rabbits by septicæmia in less than twenty-four hours. Mice were more certain to die than rabbits. Guinea pigs and dogs were much less susceptible than mice and rabbits. Rats and cats were still more resistent, but could be destroyed by larger doses of the virulent cultures. Chickens and pigeons are insusceptible. The pathological effects of large and smaller quantities of the virus when inoculated into all of the susceptible experimental animals are carefully described.

The Differentiation of the Typhoid and the Coli Communis Bacilli.

Wurtz (*Le Bulletin Med.*, 1891, No. 100, p. 1155) gives a very simple method of distinguishing between these bacilli. If they are cultivated on a solid medium containing lactose and sufficient litmus to give it a blue color, the results are as follows: In the culture of the typhoid bacillus the color remains unchanged, while in the culture of the coli communis bacillus the lactose is converted into lactic acid which changes the color produced by the litmus from the blue to a red.

From the investigations of Chautemesse and Widal it is known that, upon solid media upon which the typhoid bacillus has grown for at least eight—ten days and the growth removed from the surface, that a subsequent inoculation with the typhoid germ will not develop, while an inoculation with the coli bacillus will produce a vigorous growth. [After studying the morphology of the suspected germ, and its growth in gelatine rolls, which is quite characteristic of the coli bacillus, a very conclusive test is to cultivate it in bouillon containing two per cent. glucose, in a fermentation tube. The typhoid germ will produce no gas while the bacillus coli communis will produce a considerable quantity of gas which will collect in the closed end of the tube.—Ed.]

Pulmonary Hemorrhage.—If severe, raise the thorax, administer opiate; gallic acid, fifteen grains, every fifteen minutes; ergotin, five to ten grains hypodermically, two or three times daily; ice bags to the chest; as a last resort a ligature may be thrown around the larger limbs. (*Tyson*).

ABSTRACTS.

PATHOLOGY OF CARCINOMA.*

Dr. H. C. Coe read a paper on this subject before the New York State Medical Society. The reader introduced his paper by a reference to the great interest which had been aroused in cancer within the past five years and the hope that its mystery would be solved by the aid of bacteriology.

Various theories have been advanced regarding its nature, many of which were fanciful, others quite suggestive. These were viewed in turn down to the latest investigations on the parasitic origin of the disease. They all contained the central idea that the disease was in the nucleus of the cell itself, the cell being really infectious. Under certain degenerative conditions the normal epithelial cell might be susceptible to external infection, perhaps by the entrance of coccydia and thus assume a new malignant character. Metastasis was simply infection in distant localities by cells carried through the lymphatics from the parent growth. It should be carefully distinguished from direct extension of cancer to the tissues surrounding the neoplasm; this distinction was important from a surgical standpoint. Cancer was formerly regarded as a "cachexia," but this term was now rejected, the condition being simply a depreciated condition of the general system such as was present in all wasting diseases. Cancer like tuberculosis might be local or general.

Heredity was a factor of minor importance. Even persistent local irritation must be supplemented by some degenerative process in the epithelial cells at the point of irritation. The same applied to the cancerous transformation of benign neoplasms. The inflammatory changes *within* a cancerous tumor were essentially destructive, while those *around* it might be conservative, limiting the extension of the disease. It had been shown that outlying groups of cancer cells might be destroyed by an acute inflammatory process. The following practical deductions were made: The possibility of general or constitutional prophylaxis was purely theoretical. "Local" prophylaxis consisted in the prompt removal of a suspicious growth or tissue in the pre-cancerous stage, i. e., while it was still merely suspicious—as in the case of the eroded cervix uteri. It was possible that a specific might yet be found, such as had been sought for tuberculosis, etc.

Surgically the only rule to follow was *early* and *complete removal* of the cancerous neoplasm, even at the risk of subsequent deformity. Since it had been demonstrated that inflammatory processes might actually destroy groups of cancer cells within adjacent healthy tissue, union by first intention might not be so desirable as has been thought. The ultimate condition of the patient was the first consideration, not the rapid and non-suppurative healing of the wound. Patients must be educated to the necessity of radical removal of the growth at its incipient stage if a radical cure is to be expected. Reference was made to Robinson's and Byrnes's results with caustics and the galvano-cautery. With regard to the palliative treatment of cancer by operations enough praise could not be bestowed upon the results of modern surgery. With greater knowledge, increased skill and improved technique, these would continue to improve. We were not justified in holding altogether pessimistic views with regard to the surgical treatment of cancer.

The reader concluded with a tribute to the pathologists whose work was too often undervalued by practical surgeons, but to whom Medicine was indebted for the wonderful advance which it has made in the past decade.

*Special Correspondent to THE MEDICAL AND SURGICAL REPORTER.

"Why are you so naughty, Johnnie? It seems to me that with mamma worn out, and papa with a broken arm, you might try to be good."

"Hoh!" said Johnnie. "That's just the time to be bad. No one can lick me for it."

"Going up to Bradley's for Sunday?"

"Yes."

"Well, look out for squalls."

"Why? Bradley's not quarrelsome."

"No; but he has a new baby."

CURRENT LITERATURE REVIEWED.

THE VIRGINIA MEDICAL MONTHLY

for February contains a paper by Dr. W. P. C. Hazen on

A Question Relative to the Treatment of Diphtheria.

After reviewing the opinions of various observers, the author concludes that the disease heretofore called diphtheria should be looked upon "as two distinct diseases, namely diphtheria, resulting from the action of the Klebs-Loeffler bacillus, and pseudo-diphtheria, resulting from the presence of other organisms." On agitating a doubtful membrane gently in water, if it does not fall apart, but remains in resisting and elastic layers, there is no doubt that it is diphtheritic. The absence of the knee-jerk is said also to be proof positive of diphtheria. In the treatment, he advises spraying the throat with peroxide of hydrogen, followed in an hour by the application of a five per cent. solution of the oleate of mercury—the hydrogen peroxide being alternated every hour with the mercury. The oleate of mercury serves the same purposes as the bichloride, without its irritant qualities. In the internal administration of remedies, the practitioner must be guided by circumstances and his own good sense. With the exception of stimulants, there are no medicines the author would particularly recommend. Iron he regards as useless.

Dr. William R. Howard contributes a paper on

Puerpural Infection

the direct cause of which are microbes and their products, ptomaines and leucomaines. The author rightly regards prophylaxis as most important. Strict antisepsis in the delivery, the avoidance of lubricants—soap, oils and fat, and as few examinations as possible are his rules. In the treatment he considers antiseptic intra-uterine douches of value in the early stages. The uterus should be scraped with a blunt curette if there is reason to believe that there are shreds or decomposing clots in the cavity, but after the inflammation has extended to the tubes, ovaries, peritoneum, etc., he rightly considers curetting useless and condemns the procedure. Quinine in four to six grain doses should be given every four to six hours. He does not believe in the use of Epsom or Rochelle salts, stating that little is needed to move the bowels other than an occasional enema, which may contain turpentine if much flatus be present. [In our experience, we have found that free purgation by means of a saline, has removed seemingly threatening symptoms.—ED.]

Dr. James Kerr, in an able paper, discusses "Laparotomy in Shot Wounds of the Abdomen." The "ostrich plan" of giving opium and making the patient comfortable is mentioned only to be condemned. The literature of the subject is carefully reviewed, as is also the technique of the operation. The paper includes the report of two cases operated on by the author and a table of operations to date.

Dr. F. Pearson contributes a paper on

The Food of Cholera Germs.

According to the author, cholera epidemics in the United States have occurred in places where limestone water abounds. His conclusion is that there is a deposit formed by the water in the intestinal canal which is peculiarly favorable to the nutrition of the comma bacillus. He mentions the observation of Dr. R. G. Curtin, at the Philadelphia Hospital, that those persons drinking a lemonade of weak sulphuric acid were not attacked by the disease. According to the author, the reason for this immunity lies in the fact that the intestinal deposit of lime will be broken up and dispelled by the acid. The paper also points out the fact that it is not always the filthiest community which suffers most severely from the cholera.

Dr. J. C. Hurst considers the subject of the

Etiology of Decay in Teeth,

pointing out the fact that inorganic material is necessary for the proper maintenance of the enamel. In our civilization, we have almost completely banished inorganic substances from our chief article of food—bread. The refinements of milling flour have totally removed all the bran, in which all the inorganic material principally exists. The remedy, according to the author, lies in a return to the coarser bread of our forefathers. "In our bread, let the entire grain enter—bran and all—at each meal. Then, not until then, will we die that death which is a physiological process, with a mouth full of healthy teeth."

Dr. H. Augustus Wilson describes

A Simple Tourniquet Clasp

for the elastic tourniquet or the Esmarch's bandage. In shape it is like the letter S and is used by being fastened by its middle bar to one end of the tourniquet, the free end of the tourniquet being slipped under the upper and lower loops of the letter as in an ordinary buckle. By its means, compression may be made without using the whole length of the strap, as is necessary in the ordinary variety, furnished with a chain and hook for fastening. The instrument is made out of ⅛ inch German silver wire.

Dr. H. Berlin in an article on "The Albumen Reaction—Resemblance of Piperazine in Urine," points out the fact that such urine gives the albumen reaction with the picric acid test. It is said not to do so with the nitric acid test.

Other articles in this number are: "Foreign Bodies in the Eye," by Dr. S. Latimer Phillips; "Some Points in the Diagnosis of Cutaneous Diseases," by Dr. James C. McGuire; and "Concerning the Use of Cocaine in Enucleation of the Eye," by Dr. John Dunn.

Under Clinical Reports, Dr. H. P. Wenzel reports an "Aneurism of the Aortic Arch" which ruptured into the œsophagus, causing death almost instantly. Dr. Mark W. Pryor Peyser reports a "Case of Shoulder Presentation," necessitating embryotomy, and which was followed by the death of the mother on the tenth day from peritonitis, "due probably to the escape of the lochia through the fallopian tubes."

THE ST. LOUIS MEDICAL AND SURGICAL JOURNAL

for January, contains a paper on "The Medical Corps of the Army and Navy of the Confederate States." The formation, number and services of the medical staff of the Confederacy during the war are narrated, and a high tribute paid to the men who labored hard for the relief of suffering on the Southern side.

Dr. John W. Trader utters a solemn word of warning against

Gynecological Excesses

in a paper read before the Pettis County Medical Society in November last. The author thinks that the mind of womankind is too generally directed to the organs of generation as the *fons et origo* of their ailments, and therefore a pelvic examination is too often demanded of the gynecologist by the patient and undue treatment is inflicted on the long suffering uterus. He thinks women are apt to boast of this or that operation having been performed on them. "Jenny had her womb straightened by Dr. Blank" is too often the boast of the mother. Luxury, and the licentiousness bred of luxurious living, come in for their share of blame. Education of men and women in regard to the sacredness of their bodies and the teaching of purity in thought and deed would do much to diminish the work of the specialist in the diseases of women.

"Optometry" is the title of a lecture by Dr. Flavel B. Tiffany, delivered to the class at the University Medical College of Kansas City. The various eye tests and the instruments used are described. The paper is illustrated by cuts of instruments and photographs of the methods of use.

This number concludes with a lecture by Dr. Thomas J. Mays on "Asthma." Strychnia, hyperdermically or by the mouth, is advocated in the treatment and a number of cases are reported.

THE COSMOPOLITAN FOR FEBRUARY.

This magazine is rapidly gaining an international reputation as one of the foremost of American publications. The more interesting of the articles include an illustrated essay on naval construction, showing its evolution from the galley of the Spanish armada to the battle ship of to-day; a fanciful sketch "June, 1993," which is a not very good romance of the "Looking Backward" style; an instructive article on the A. T. and S. F. R. R., and several short stories. Other leading articles are "Monte Carlo," a hamdsomely illustrated sketch of this great gambling resort;" "Sugar from Sunbeams," telling how beet sugar is made, and a eulogistic article on Blaine. It is certainly a quarter's worth—this February Cosmopolitan.

PERISCOPE.

THERAPEUTICS.

Substances Incompatible with Antipyrine.

The following substances precipitate antipyrine from its aqueous solutions:

(1) Concentrated solutions of carbolic acid.

(2) Tannin, and preparations containing tannin.

(3) Tincture of iodine.

(4) The chlorides of mercury.

The following substances, when triturated with dry antipyrine, decompose it:

(1) Calomel, which forms a toxic compound with antipyrine.

(2) Beta-naphtol.

(3) Choral hydrate, which forms an oleaginous liquid with it.

(4) Sodii bicarbonas, which when brought in contact with it sets free an odor of acetic ether.

(5) Salicylate of soda, which also forms an oleaginous compound with it.

(6) The salts of quinine and caffeine, which have their solubility increased by antipyrine.—*Gaz. des Hopitaux.*

Subcutaneous Injections of Normal Nerve Substance in Epilepsy and Neurasthenia.

Babes (*Deutsch. Med. Woch.*, July 28th, 1892) records the results of this method of treatment in a large number of patients. Normal brain and spinal cord were made into an emulsion with broth in the proportion of 1 gramme of the nerve tissue to 5 grammes of broth. Of this 4 to 5 grammes were injected in the abdomen or flank five to six times a week in epileptics, and four to five times a week in neurasthenics. A large number of epileptics were cured, and others greatly improved. Good results were also obtained in melancholia, neurasthenia, and cases of slow heart action. A case of sleeplessness, in which all known narcotics, even in large doses, had failed, was cured after three injections. A patient with cephalalgia of over a year's duration was remarkably improved after seven injections. Syncopal attacks and a paralytic condition in another patient disappeared after sixteen injections. Sciatica of a month's standing was cured by three injections.

After-Effects of Chloroform.

Luther (*Munch. Med. Woch.*, January 3rd, 1893,) says that changes are found in the kidneys after death by chloroform, however, produced. He says that after almost every administration, especially if prolonged, albumen and casts appear in the urine. The author has found that (1) the urine was normal when no after-effects, such as vomiting, etc., were present; (2) of many cases examined the after-effects were most marked in the single case in which abnormal constituents were found in the urine; (3) albuminuria and cylinduria go hand in hand, and disappear after a few days, and (4) the casts are mostly hyaline. He concludes for these reasons that (1) the use of chloroform should be limited to cases where it is necessary; (2) in every case before prolonged narcosis the urine should be examined, renal disease being a more important contra-indication than heart disease (except fatty heart); (3) chloroform narcosis should be restricted in the case of the pregnant and lying in, and it should be absolutely avoided in eclampsia, since it must be prolonged, and the kidneys are nearly always diseased; and (4) mild diuretics are of value in the after-effects of chloroform.

The Effects of Acids on the Functions of the Stomach.

1. Acids throw down a considerable precipitate of mucous.
2. They increase the cellular elements of the gastric contents.
3. Their introduction is followed by butyric-acid reaction, most marked after hydrochloric acid.
4. Larger quantities of the acids result in a considerable effusion of bile into the stomach.
5. They stimulate the secretion of pepsin, but have no influence upon the secretion of hydrochloric acid.
6. Their long-continued adminstration is followed by marked diminution of the secretion of hydrochloric acid.
7. Even in large quantities hydrochloric acid produces no gastric disturbances. On the contrary, a continued administration of the acid is attended with a feeling of well being.
8. The difference in the effect between acids and the alkaline salts on the gastric functions consists in the fact that the alkaline salts dissolve the mucous and decrease the secretion of pepsin, while the acids precipitate the mucous and increase the secretion of pepsin.

The disappearance of the alkaline salts from the stomach is followed by a decided increase of the hydrochloric acid secretion. This does not occur, or only to a slight degree, in the case of acids. Both the acids and salts, in large quantities in continued use, have the same effect in lowering the activity, and finally in destroying the function of the glands secreting hydrochloric acid.—*Jaworski, in Centrlablatt fur Klin. Med.*

MEDICINE

Antisyphilitic Treatment—Proper Duration.

This is one of the most interesting and, as is well-known, most disputed questions of medical practice. The physician is often puzzled in making a proper choice, and in the end, and after much hesitation, generally decides upon what, in his experience, has been the mean duration of treatment. But how often do we see patients who, after having been under medical supervision for a length of time, abandon the doctor to treat themselves—believing themselves to have a sufficient experience to permit them to do so, and thus destroy their constitution by a too prolonged use of mercurials when the latter are no longer indispensable, yea, often even harmful!

In a communication to the Paris Societe de Therapeutique, Dr. Bonetemps, of Saumuz, supported the doctrine of Prof. Fournier, who asserts that in no case can the duration of the antisyphilitic treatment be fixed at less than three or four years. As, at the same time, the patients ought to observe in the medication certain alterations and periods of repose or dishabituation, Dr. B. has arranged the following table, a convenient vade-mecum for the practitioner:—

First Year
- 6 months of mercurial treatment,
- 3 months of potasium iodide,
- 3 months of repose.

Second Year
- 2 months of mercury,
- 5 months of iodide,
- 5 months of repose.

Third Year
- 2 months of mercury,
- 5 months of iodide,
- 5 months of repose and sulphur baths.

Fourth Year
- No mercury.
- Potasium iodine with intervals of
- Repose and sulphur baths.

Merck's Bulletin.

The Use of Strychnine and Digitalis in Diarrhœa.

In fevers of a remittent character Mr. Hendly says, the complication of persistent diarrhœa occurred frequently, and at periods when the patient was worn out by fever, and the digestive powers were rapidly failing, I determined to use these drugs to combat certain symptoms. In these cases the temperature ranges from 1° to 2½° above normal, the pulse is soft and yielding, not very rapid, and markedly wanting in tone; the motions four or five daily, increase in number until nourishment appears to excite an action of the bowels, marked by even a greater tendency to fluidity, the extreme being reached when the motions escaped involuntarily, and is followed by a tendency to cardiac failure, if not collapse, frequently accompanied by a consciousness of approaching dissolution in the patient. Digitalis was chosen for these cases because of its well-known general action upon the vaso-motor system; strychnine for its less known more direct action

upon that portion of the system concerned in the control of the blood supply to the intestines. The mixture employed was tr. digitalis, *m*iv; liq. strychniæ, *m*ij; spts. chloroformi, *m*v; in water, and repeated at from one to four hourly intervals.—*The London Practitioner.*

SURGERY.

A New Method of Gastro-enterostomy.

Postnikow, of Moscow (*Centralbl fur Chir.*, No. 49, 1892) describes a method of performing gastro-enterostomy in which the establishing of a free communication between the stomach and duodenum is postponed until the third or fourth day after the date of operation. The following are the stages of this method, which has been tried with complete success on seventeen animals:—(1) Incision of the abdominal wall; (2) attachment of the selected loop of small intestine to the anterior wall of the stomach by sutures passed beneath the serous coats; (3) excision of a small oval piece from the wall of the stomach as far as the muscular layer, and of a similar piece of the same depth from the wall of the small intestine; (4) union by means of sutures of the posterior edges of the raw surfaces thus established on the stomach and the loop of small intestine; (5) constriction by the silk thread of the portions of mucous membrane protrude at the wounded surfaces of the stomach and small intestine after removal of the serous coat; (6) union by sutures of the anterior edges of the opposed raw surfaces; (7) application of a second row of sutures passed beneath the serous coats; (8) closure of the external wound. In this operation the mucous membrane of the stomach and small intestine is not incised, but is closely constricted by two ligatures which, by causing gangrene of the protruded portions of these coats, and consequent separation, establish a free communication between the adherent parts of the gastro-intestinal tract. Postnikow states that by this method the escape of fæcal matter into the peritoneal cavity is prevented, the duration of the operation is shortened, and the necessity for washing out the stomach avoided.—*Br. Med. Jour.*

Transplantation of Bone.

Kapper (*Wein Med. Woch.*, No. 45, 1892) relates the following case. A strong, healthy woodcutter, aged 19, had been injured by the falling of a tree; a piece of wood pierced the right parietal region, he became insensible for a short time, and was taken to a hospital. There he suffered from pains in the head, and the injured part became much swollen. Eight days afterwards he left the hospital of his own will. Immediately after leaving the patient was seized with pain in the head, in the right eye, and in the wound. Ten days after the accident he came under Kapper's care. He then presented a wound the size of a shilling in the anterior part of the right parietal region, which was swollen, red and covered with granulations, and from which yellow pus was being discharged. The patient was narcotised and the wound enlarged; then the underlying bone was found to have an aperture in it from which exuded a quantity of yellow pus. This aperture was widened with a chisel, and between the cranial vault and the dura mater a piece of hard wood 3 cm. long, 2 cm. wide at its base, and ½ cm. thick was found implanted. This was removed, and the parts thoroughly cleansed; the wound was then drained and dressed with iodoform gauze. At the end of eleven days the wound was quite healthy. At this time the wound was opened up, and the cranial bones of a young goose several days old taken, cut up into eight small flattened plates, and then placed in the bottom of the wound upon the dura mater so as to fill up the defect in the bony wall of the skull; dressings of iodoform gauze were then applied and left on for ten days. On removing the dressings the bone had become partially consolidated. A few weeks afterwards the wound had completely healed, and the hole in the parietal bone was quite filled up with the newly formed bone.—*Br. Med. Jour.*

NEWS AND MISCELLANY.

State Board of Medical Examiners of New Jersey.

Candidates applying for a license (after the July, 1893, meeting of the State Board of Medical Examiners) to practice medicine in New Jersey, will be examined in the following subjects arranged in sections as follows, viz: Sec. 1, Materia Medica and Therapeutics; Sec. 2, Obstetrics and Gynecology; Sec. 3, Practice of Medicine (including diseases of the Skin, Nose and Throat); Sec. 4, Surgery (including Surgical Anatomy and diseases of the Eye, Ear and Genito-urinary organs); Sec. 5, Anatomy; Sec. 6, Physiology; Sec. 7, Chemistry; Sec. 8, Histology, Pathology and Bacteriology; Sec. 9, Hygiene and Medical Jurisprudence.

The following percentages will be required, also, after that date, before a license will be issued, viz: Candidates examined in the first class, i. e. graduates of five years or more, shall obtain a total average of eighty (80) per cent.; candidates examined in the second class, i. e. graduates of less than five years, shall obtain a total average of seventy-five (75) per cent., providing that in no one section shall the percentage be less than thirty-three and one-third (33⅓) per cent., in which case, however, should the total average percentage in all the other sections, be above seventy-five (75) per cent., the candidates may be granted a second examination, immediately, upon that section. Candidates examined in the third class, i. e. non-graduates, who have taken three full courses of lectures in a reputable Medical School shall obtain a total average of eighty (80) per cent., and candidates taking their preliminary or final examination shall obtain a total average of eighty (80) per cent., at each of said examinations.

TREASURY DEPARTMENT.
Office Supervising Surgeon-General, Marine-Hospital Service,
WASHINGTON, D. C., Feb. 11, 1893.

A board of officers will be convened at Washington, March 20, 1893, for the purpose of examining applicants for admission to the grade of Assistant Surgeon in the U. S. Marine Hospital Service.

The following is the usual order of the examination: 1, Physical. 2, Written. 3, Oral. 4, Clinical.

In addition to the physical examination candidates are required to certify that they believe themselves free from any ailment which would disqualify for service in any climate.

The examinations are chiefly in writing, and begin with a short autobiography by the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery and hygiene.

The oral examination includes subjects of preliminary education, history, literature, and natural sciences.

The clinical examination is conducted at a hospital, and when practical candidates are required to perform surgical operations on cadaver.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order, as vacancies occur.

Upon appointment the young officers are as a rule first assigned to duty at one of the large marine hospitals, as at Boston, New York, New Orleans, Chicago, or San Francisco.

After four years service, Assistant Surgeons are entitled to examination for promotion to the grade of Passed Assistant Surgeon.

Promotion to the grade of Surgeon is made according to seniority, and after due examination as vacancies occur in that grade. Assistant Surgeons receive sixteen hundred dollars, and Passed Assistant Surgeons eighteen hundred dollars, and Surgeons twenty-five hundred dollars a year. When quarters are not provided, commutation at the rate of thirty, forty, or fifty dollars a month, according to grade, is allowed.

All grades above that of Assistant Surgeon receive longevity pay, ten per centum in addition to the regular salary for every five years' services up to forty per centum after twenty years' service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses. For further information, or for invitation to appear before the board of examiners, address,

WALTER WYMAN,
Supervising Surgeon-General,
U. S. Marine Hospital Service,
Washington, D. C.

The Section on Laryngology and Rhinology of the Pan-American Medical Congress is now thoroughly organized with secretaries in all the countries of South America as well as in the United States and Canada.

The President, Dr. E. Fletcher Ingals, of Chicago, is making a thorough canvass to secure a large number of good papers for the Section, and aided as he will be by the able Secretaries, Drs. Murray and y Alonso, and the corps of honorary presidents he feels assured of the success of this department of the Congress. All physicians interested in this Section are requested to correspond with the secretaries for the United States.

DR. J. MARON y ALONSO,
(Spanish Speaking,)
Las Vegas, N. M.
DR. T. MORRIS MURRAY,
(English Speaking,)
Washington, D. C.

ARMY AND NAVY.

FROM FEBRUARY 5, 1893, TO FEBRUARY 11, 1893.

A Board of Medical Officers, to consist of Colonel Charles H. Alden, Assistant Surgeon General, U. S. Army; Lieut. Col. George M. Sternberg, Deputy Surgeon General, U. S. Army; Major John Van R. Hoff, Surgeon, U. S. Army.

Captain Guy L. Edie, Assistant Surgeon, U. S. Army, is constituted to meet in New York city on the 27th day of March, 1893, or as soon thereafter as practicable, for the examination of candidates for admission to the Medical Corps of the Army, and for such other business as may be brought before it.

Leave of absence for one month, with permission to apply for an extension of one month, is granted 1st Lieutant Charles Willcox, Assistant Surgeon.

Captain Paul Shillock, Assistant Surgeon U. S. Army, promoted as such to date from January 31, 1893, in accordance with the act of June 23, 1874.

By direction of the Secretary of War, the order assigning Capt. Charles B. Ewing, Assistant Surgeon, U. S. Army, to duty as Post Surgeon, Fort McHenry, Md., is suspended until June 1, 1893, when he will comply with the order.

The leave of absence granted Captain Junius L. Powell, Assistant Surgeon, U. S. Army, is hereby extended one month.

To the Inauguration Via B. & O. R. R.

The Baltimore and Ohio Railroad announces that on the occasion of the Inauguration of Cleveland and Stevenson on March 4th it will sell excursion tickets to Washington and return at low rates. Tickets reading via the B & O. will be on sale at its own offices and at the offices of the principal railroad companies throughout the country. Tickets will be sold March 2d, 3d and 4th, and will be good for return journey until March 7th inclusive. For information in detail concerning time of trains, rates of fare, etc., address C. P. Craig, Gen'l Eastern Passenger Agent, 415 Brordway, New York; A. J. Simmons, New England Passenger Agent, 211 Washington Street, Boston, Mass., or James Potter, District Passenger Agent, 833 Chestnut Street, Philadelphia, Pa.

CALENDAR OF MEDICAL SOCIETIES.

Association.	President.	Secretary.	Place and Time.
NATIONAL.			
Am. Academy	J. E. Emerson, Detroit	C. McIntyre, Easton, Pa	Milwaukee, June 5, 1893.
Am. Anatomists			
Am. Andrological	E. R. Palmer, Louisville	J. A. Fordyce, New York	Harrogate, Tenn., June 20,'93
Am. Climatological	G. T. Jackson, New York	G. H. Fox, New York	Milwaukee, Sept. 5, 1893.
Am. Dermatological			
Am. Gynecological	T. Parvin, Philadelphia	H. C. Coe	Philadelphia, May 12, 1893.
Am. Health Resort			
Am. Laryngological	C. H. Knight, New York	M. J. Asch, New York	New York, May, 1893.
Am. Medical	Hunter McGuire Richmond	W. B. Atkinson, Philadelphia	Milwaukee, June 6, 1893.
Am. Medico-Psychol'.	J. Curwin, Warren, Pa	H. M. Hurd, Baltimore	Chicago.
Am. Neurological			
Am. Obstetricians	L. S. McMurtry, Louisville	W. W. Potter, Buffalo	Detroit, June 1.
Am. Ophthalmological	S. B. St. John, Hartford	H. Derby, Boston	New London, Conn., July 20.
Am. Orthopedic	J. J. Steele, Louisville	J. Ridlon, Chicago	St. Louis, Sept. 19.
Am. Otological			
Am. Pædiatric			
Am. Physiological			
Am. Physicians	A. L. Loomis, New York	H. Hun, Albany	Washington, May 30.
Am. Public Health			
Am. Railway Surgeons	C. W. P. Brock, Richmond	E. R. Lewis, Kansas Oity	Omaha, June.
Am. Rhinological	E. K. Lewis, Indianapolis	R. S. Knode, Omaha	Indianapolis, Oct., 1893.
Am. Surgical			
Mississippi Valley	R. S. Sutton, Pittsburg	C. A. L. Fitzpatrick	Indianapolis, Oct., 12, 1893.
Pan-Am. Congress	W. Pepper, Philadelphia	C. A. L. Reed, Cincinnati	Washington, Sept. 5, 1893.
STATE.			
Alabama	J. T. Searcy, Tuscaloosa	T. A. Means, Huntsville	Tuscaloosa, April 8.
Arizona	J. Miller, Phoenix	J. T. Green, Tucson	
Arkansas	J. T. Jelks, Hot Springs	L. P. Gibson, Little Rock	Little Rock, June 2, 1893.
California	W. E. Taylor, San Francisco	W. W. Kerr, San Fransisco	SanFrancisco, April 18, 1893.
Colorado	W. E. Wilson, Denver	H. S. Lobinger, Denver	Denver, June 15, 1893.
Connecticut	C. B. Newton, Stafford Spr'gs	N. E. Worden, Bridgeport	Hartford, May 24, 1893.
Dakota, North	A. P. Rounceveille, Larim're	D. S. Moore, Jamestown	Jamestown, May 25, 1893.
Dakota, South	A. L. Peterman, Parker	R. C. Warne, Mitchell	Huron, June 4, 1893.
Delaware	E. W. Cooper, Camden	W. C. Pierce, Wilmington	Rehoboth, June 13, 1893.
Florida	S. Stringer, Brookville	J. H. Douglass, Jacksonville	Jacksonville, April 4, 1893.
Georgia	A. H. Smith, Hawkinsville	D. H. Howell, Atlanta	Americus, April 21, 1893.
Idaho			
Illinois	E. F. Ingals, Chicago	D. W. Graham, Chicago	Chicago, May 16, 1893.
Indiana	G. F. Beasley, Lafayette	E. S. Elder, Indianapolis	Indianapolis, May 9, 1893.
Indian Ty	D. Bagley, Vinita	H. B Smith, McAlester	Atoka, June 5, 1893.
Iowa	C. M. Hobby, Iowa City	C. S. Chase, Waterloo	Des Moines, May 18.
Kansas	F. F. Dickman, Ft. Scott	G. C. Purdue, Wichita	Topeka, May, 1893.
Kentucky	A. Dixon, Henderson	Steele Bailey, Stanford	Frankfort, May 3, 1893.
Louisiana	S. E. Archenard, N. Orleans	P. B. McCutcheon, N. Orlea's	New Orleans, May 9, 1893.
Maine	A. H. Mitchell, Brunswick	C. D. Smith, Portland	Portland, June 14, 1893.
Maryland	L. McLane Tiffany, Balti're	G. L. Taneyhill, Baltimore	Baltimore, April 25.
Massachusetts	J. C. White, Boston	F. W. Goss, Roxbury	Boston, June 13, 1893.
Michigan	G. V. Chamberlain, Flint	C. W. Hitchcock, Detroit	Muskegon, May 11, 1893.
Minnesota	A. W. Abbott, Minneapolis	C. B. Wetherle, St. Paul	Minneapolis, June 21.
Mississippi	W. Kiger, Vicksburg	H. H. Haralson, Meridian	Jackson, April 18.
Missouri	A. B. Miller, Macon	F. R. Fry, St. Louis	Sedalia, June 20.
Montana	W. Trearcy, Helena	Dr. Ellis, Butte	Great Falls, April 19.
Nebraska	M. L. Hildreth, Lyons	G. W. Wilkinson, Omaha	Nebraska City, May, 1893.
Nevada			
New Hampshire	M. W. Russell, Concord.	G. P. Conn, Concord	Concord, June 20.
New Jersey	G. T. Welsh, Passaic	W. Pierson, Orange	Spring Lake, June, 1893.
New Mexico		M. F. Desmaris, LasVegas	
N. Y. Association	S. W. McLeod, New York	E. D. Ferguson, Troy	New York, Oct. 19, 1893.
N. Y. Society	L. S. Pilcher, Brooklyn	F. C. Curtis, Albany	February 7, 1893.
North Carolina	J. W. McNeill, Fayetteville	R. B. Jewett, Wilmington	Wilmington, May 7.
Ohio	D. P. Allen, Cleveland	T. V. Fitzpatrick, Cincinnati	Put-in-Bay.
Oklahoma	C. B. Bradford	Loss Walker, Oklah'a City	
Oregon	W. E. Rinehart	C. H. Wheeler, Portland	
Pennsylvania	H. L. Orth, Harrisburg	W. B. Atkinson, Philadelphia	Williamsport, May 16, 1893.
Rhode Island	W. H. Palmer, Providence	W. R. White, Providence	Providence, June 2.
South Carolina	W. H. Narlen, Anderson	W. P. Porcher, Charlestown	Sumter, April 3, 1893.
Tenessee	C. W. Beaumont, Clarksville	D. E. Nelson, Chattanooga	Nashville, April 11, 1893.
Texas	J. W. Osborne, Cleburne	H. A. Weston, Galveston	Galveston, May 2, 1893.
Utah			
Vermont	J. W. Jenne, St. Louis	D. C. Hawley, Burlington	Montpelier, Oct. 14, 1893.
Virginia	H. M. Nash, Norfolk	L. B. Edwards, Richmond	Charlottesville, Oct., 1893.
Washington	N. F. Essig, Spokane	O. G. Shaver, Tacoma	
West Virginia	D. P. Morgan, Clarksburg	D. Mayer, Charlestown	Parkersburg, June, 1893.
Wisconsin	B. T. Phillips, Menominee	C. S. Sheldon, Madison	Milwaukee, May 3, 1893.
Wyoming			

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ORIGINAL ARTICLES.

ALEX. DALLAS, M. D., New York.
The Treatment of Inguinal Hernia. 277

THOMAS H. MANLEY, M. D., New York.
Surgical Measures of Relief in Stenosis of the Upper Air Passages. 284

CLINICAL LECTURES.

JOHN A. ROBISON, A. M., M. D., Chicago, Ill.
Pneumonia: Gall Stones. 287

COMMUNICATIONS.

L. S. MCMURTRY, M. D., Louisville, Ky.
Some Interesting Ovariotomies. 288

J. M. MATTHEWS, M. D.
Stricture of the Rectum. 290

SOCIETY REPORTS.

The Surgical Society of Louisville. 292

The Clinical Society of Louisville. 298

CORRESPONDENCE.

New York Letter. 300

EDITORIAL

A Modern Don Quixote Charging a Windmill. . . 302

TRANSLATIONS 304

ABSTRACTS 309

SELECTED FORMULÆ. 310

THE LIBRARY TABLE. 312

CURRENT LITERATURE 313

PERISCOPE

THERAPEUTICS. 316

MEDICINE 316

NEWS AND MISCELLANY 316

ARMY AND NAVY. 316

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THE
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ORIGINAL ARTICLES.

THE TREATMENT OF INGUINAL HERNIA.*

ALEX. DALLAS, M.D., New York.

No subject has come before you, at this meeting, of greater importance than that of Hernia. From the frequency of its occurrence; from the universality of its prevalence, invading, as it does, all ages and conditions of society; from the pain and discomfort to which it gives rise; from its disabling effects, debarring its victims from many avenues of livelihood and compelling them to a quasi-invalidism; and from the large number of deaths directly due to it, and the still larger number traceable to its depressing and debilitating effects, the proper treatment of hernia forms the most important branch of practical surgery.

Now, the aim of all surgery is to relieve suffering and remove disability or deformity: and no other surgical disease is so frequent or gives rise to the same amount of pain and disability, while few exceed it in mortality. As a conservative estimate, there are to-day, in this country, *three and one-half millions* of persons suffering from hernia, *a ratio of thirty cases of rupture to every practising physician*. This, surely, proves the absolute necessity there is for every practitioner to make himself familiar with the treatment of hernia and to be prepared to meet the sudden and dangerous complications to which it often gives rise. No physician has the right to carelessly delegate to others duties for which he alone is qualified, and for the proper performance of which he should be accountable. Correct methods of treatment are within the compass of every practitioner and, during the short time at my disposal, I shall briefly present those which have proved most satisfactory in my hands. These methods may be divided into 1st., "the palliative;" 2nd., "the mixed;" 3rd., "the radical; 4th., "the treatment of strangulated hernia."

THE PALLIATIVE.

The palliative treatment of hernia includes all measures used to prevent the descent of the hernial protrusion, such as the recumbent posture, bandages, but more particularly, the employment of trusses of various descriptions. It is of the utmost importance that palliative treatment should be commenced as soon as a disposition to the formation of a hernia is detected; for, by the prompt initiation of treatment, and its judicious continuance under the personal supervision of the surgeon, cures can often be effected where failures are now the rule. Particularly important is this fact in the hernia of childhood where palliative measures are, of themselves, sufficient in almost all cases to effect a cure: and to permit a child to grow up to adult age handicapped by so serious an infirmity, bespeaks culpable neglect or criminal ignorance.

Success in the treatment of these cases can only be attained by prompt, intelli-

*Read before the New York State Medical Society, Albany, N. Y., February, 1893.

gent, persistent effort on the part of the surgeon and attendant; and the absolute necessity for skilled supervision cannot be too strongly urged upon the laity by the profession.

Unfortunately, many practitioners act as if truss-treatment were of little consequence and beneath their dignity or, as a prominent surgeon of this town put it, "work for a blacksmith." These men will spend hours over a fracture which almost any neophyte can diagnose, and on the application of a splint which is only temporarily required, while they carelessly delegate to the druggist's apprentice or the truss vendor the adjustment of a truss upon which the welfare and life of the patient depend. On the other hand, the truss dealer is careful to inform the patient of the doctor's inability to cope with these cases through his ignorance of the subject. A prominent truss dealer in New York who depends entirely upon the physicians for his business, assured me that "not one doctor in one hundred knew enough to take the correct measurements for a truss." And the physician wonders what has become of his patient! The lamentable results of this evasion of duty are witnessed daily; for the trusses generally employed prove veritable implements of torture, causing irreparable injury and life-long misery. Too weak, they allow the rupture to descend and become bruised and compressed; too strong, they cause absorption of the parts against which they press; ill-shaped and wrongly adjusted, they contuse important organs; and the blame of all this is placed upon the rupture, where it does not belong, but upon the physician who shirks his duty and the tradesman who is unfit to assume it. Neglected and discouraged by the physician, illtreated and tortured by the tradesman, is it any wonder that these poor sufferers fall ready victims to the charlatan with his wonderful ointments and lotions and his guaranteed cures?

To select a truss with judgment, the surgeon should familiarize himself with the instruments now in use and acquaint himself with the advantages claimed for each. On his selection and subsequent care will depend the success or failure of the treatment, and the comfort or misery of the patient. The requisite and essential qualities of a good truss are as follows: It should be light, so as not to burden the patient; strong enough to prevent protrusion; elastic enough to follow the abdominal movements; firm enough not to be easily displaced; so arranged that it does not press injuriously upon important organs nor interfere with the movements of the body; and so adjusted that it fits like a well made garment. To make effective pressure, there must be a firm point of support from which to make it; there must be a back pad as well as a front pad. In this way we secure greater accuracy with less pressure. Each hernia should have the truss specially adapted to it; the pad and the spring should be regulated by the case. It should be inspected at regular intervals and the pressure increased or diminished as the case may demand. And the surgeon should remember that, after the unavoidable inconvenience of the first few days, *any further pain or discomfort is unquestionably due to an ill-adjusted or improperly made truss*, and its continuance is unnecessary cruelty.

A careful examination of the trusses now in use will readily show how imperfectly they meet these indications. In all, the spring passes around the buttocks and rests upon the gluteal muscles. As a result, the pressure is applied laterally and, therefore, at a disadvantage, while, in most, it is unnecessarily severe. Naturally, the instrument moves with every motion of the body, producing painful excoriations of the skin. They all impinge upon the pubic bone and thus increase the discomfort of the patient. The shape of the ordinary pad is an anomaly and its method of application unscientific. Its conical surface, driven into the external ring by the powerful spring and kept in constant motion by every movement of the body, bores its way into the canal and actually enlarges it; while the severe pressure which it exerts causes atrophy of the surrounding tissues. In all, their point of greatest pressure is at and below the external ring where there is only integument between the pad and the pubic bone. As an inevitable result there occurs compression and gradual occlusion of the spermatic cord. With the present truss this is *unavoidable*, and the injury is *direct and positive*. From this source alone come the pain and misery of which so many complain and which gradually induce a nervous irrita-

bility and lowered vitality which render the sufferers easy victims of any intercurrent attack. A ready proof of the correctness of this statement is furnished by the result of the removal of the pad from the pubic bone when all these symptoms disappear.

The employment of flat pads, as is found in some trusses, intensifies the pressure at their lower borders and they should never be used in inguinal hernia. The so-called elastic truss should, under no circumstances, be employed. By the use of the tight perineal band, the pad is firmly pressed down upon and anchored over the pubic bone, causing injurious pressure upon the cord, while the constantly retracting action of the rubber band produces atrophy of the tissues on which it presses.

In all these trusses the pressure of the pad upon the external ring is upward and backward *causing pouting of the abdominal end of the canal,* thus predisposing to the presence of a *bubonocele.* This upward pressure is intensified in the "lever truss," and the pain and injury are also greater. The "cross body" truss, highly endorsed by some, is particularly objectionable; for the incessant motion to which all side springs are subjected is here increased on account of the greater length of the lever.

An effort is sometimes made to overcome this tendency to drop by increasing the size and convexity of the pad and the strength of the spring, but the truss soon sinks down until it rests upon the pubic bone. The receding abdominal walls, the constant motion to which the instrument is subjected and the force of gravity are obstacles too great to be overcome.

The truss I now show you is the result of years of experiment and, during the time it has been in use, it has seemed to meet the requisite indications. It is light and cool. It rests upon the crest of the ilium, an immovable support, and is not affected by any of the movements of the body. There is no constricting band around the hips to cause atrophy of the muscles and to interfere with every motion. As a result, there is no incessant disturbance of the pad and, consequently, no excoriations to heal up. The belt passes down the sides of the abdomen closely hugging the abdominal walls, thus breaking the lateral recoil of the intestines which causes the protrusion, and acting as an auxiliary to the pad. The pad, itself, of hard rubber, is small and somewhat quadrilateral in shape; its lower outer angle cut off to fit into the fold of the groin; its surface flat or slightly concave to adapt itself to the convex abdominal walls. Running from the centre of the face of the pad to its lower edge is *a gradually deepening groove* which *prevents compression of the spermatic cord.* The pressure exercised by this truss, being applied from above downward, is slight, comfortaby borne and directly over the *internal ring* and *upper part* of the canal; and *it is the only truss by which pressure can be retained there.* Another important feature is its ease of application. Once properly adjusted, it can be taken off by the patient and reapplied without fear of displacement, a fact which cannot be said of any other truss with which I am acquainted. As all spring trusses should invariably be removed at bedtime, to be reapplied on getting up, the importance of this will be readily appreciated.

The benefits to be derived from truss pressure should be thoroughly understood and are purely mechanical. By keeping the sac entirely empty and preventing the intrusion of the gut, the sac, with the surrounding tendinous ring, contracts, in obedience to the general law by which all hollow parts of the body adapt themselves to their contents. In *congenital* hernia, the exclusion of all foreign bodies from the vaginal process of the peritoneum permits of the contraction and obliteration of the cavity which would otherwise naturally have occurred. In *acquired* hernia, before the sac has attained a a separate existence of its own, the pressure of a properly adjusted truss restores the peritoneum forming the sac to its natural situation, the cavity of the sac is effaced and the peritoneum recovers its former polish and elasticity. In this way, cures sometimes take place in adults, but can hardly be expected in old people. When the sac has acquired an independent existence, the action of the truss is still purely mechanical. By preventing the entrance of gut or omentum it places the parts in the most favorable condition to undergo those changes of gradual contraction and obliteration described elsewhere. In all cases successful results can only be attained by a careful adjustment of the amount and direction of the

pressure in each case and a constant supervision during the progress of the treatment. If too little pressure be employed, the bowel, but especially omentum, will be constantly slipping down and getting compressed and a cure can never be effected. If, on the other hand, too much pressure be used, particularly if the usual *conical pad* be employed, the opening gradually enlarges and the surrounding tissues atrophy.

When the truss has been applied the medical attendant seems to think that his work is done. As a matter of fact, the real treatment of the case has just commenced if he expects to obtain a cure. The patient should be kept under the surgeon's supervision and should be carefully examined at regular intervals to assure himself of the perfect retention of the hernia, as well as in the case of children, to provide for their rapid growth. Perfect cleanliness should be preserved and all causes that operate to prevent or retard nature in her efforts at repair should be removed. The digestion should be carefully looked after. Constipation should be prevented. Vomiting or straining from any cause should be avoided, as well as excessive bodily exertion, and, where the patient is obliged to make any considerable effort, he should be taught to support the pad with his hand. The persistence of any of these causes may hinder, or even completely destroy, all chances of cure directed solely to the hernial protrusion.

At the same time, efforts should be made to develop and strengthen the weakened tissues by massage, electricity and gymnastic movements of various kinds. *No spring truss should ever be worn in bed.* In most cases it is unnecessary; in all it is harmful. When it is considered desirable to have some support, as in children, the truss should be removed at bed-time and replaced by a "hank truss" or home-made bandage.

What results can be expected from prompt, careful, judicious, persistent, palliative treatment? In infants and in children up to puberty, a cure should be expected and can be obtained with scarcely an exception. In adults, if treatment be commenced immediately on the appearance of the first symptoms, or before the sac has formed, success can often be attained; but cases of epiplocele are less likely to be cured on account of the difficulty of keeping it reduced. (The crural ring, also, from its structure and situation, is less affected by external pressure than the abdominal ring. Crural hernia, therefore, is less frequently cured than inguinal, for the sides of the aperture appear less capable of contraction and, certainly, less susceptible of approximation from external pressure.) In old people, we cannot look for a cure, but proper treatment will prevent any increase of the hernial tumor.

MIXED TREATMENT.

When, after a fair trial, the palliative method of treatment has failed, other measures have at various times been tried, but the uncertainty of their action and the temporary character of their results have caused them to pass into disuse. To obviate these difficulties I have devised an instrument which is applicable both in inguinal and femoral herniæ. It is simple in its application; it is definite and exact in its results. It is entirely free from danger and the confinement necessitated by its employment is of short duration. The patient's consent can be readily obtained and its use can be safely recommended in all suitable cases. Finally, its results will compare very favorably with those of other and more dangerous measures. The instrument consists of a head and shaft or handle. The head is flattened and its point smooth and blunted. Its anterior and posterior surfaces and outer edge are covered with fine needle pointed projections while its inner edge is smooth and occupied by a deep groove. The cover of the shaft is movable and, while the instrument is being introduced, is pushed forward so as to cover completely all the serrations and present a perfectly smooth, rounded surface. In operating, the parts are prepared in the usual way, while the instrument is rendered thoroughly aseptic by boiling. Twenty or thirty drops of a four per cent. solution of cocaine is injected into the field of operation and a transverse incision, one inch long, is made through the integument, just below the external ring. The fascia is carefully separated and the spermatic cord gently lifted towards the inner wall of the canal. The instrument is now introduced, the groove turned towards and embracing the cord, and cautiously insinuated through the canal until its point is felt

free in the abdominal cavity. The shield is now removed and the instrument slowly withdrawn, during which the whole interior surface of the canal, except the portion covered by the groove, is abraded and freshened. The surfaces are pressed together as the instrument is being withdrawn so as to prevent any unnecessary effusion of blood; the external wound is closed and sealed with iodoform collodion; a firm compress is placed over the canal and retained in position by strips of plaster and a bandage, and the patient is kept in bed for a few days until all local tenderness has passed away. By this simple method, we at once secure complete agglutination of the walls of the canal and, consequently, a firm and permanent cure, without pain and with only three or four days confinement to bed. A light truss, with a grooved pad, is then adjusted and the patient allowed to go about. At the end of two or three months, the truss can be discarded, the measures already described being used meantime to strengthen the parts.

This operation is applicable in all recent cases of acquired inguinal and femoral hernia and in all cases of congenital hernia, even of long standing. (It can be used in any case where the canal has not become obliterated by the pressure of the protruding viscera.) In femoral hernia the incision is made over the saphenous opening, the groove is turned towards the femoral vein and, in the after-treatment, the leg should be well supported.

In the cases in which I have used it the results have been most satisfactory and entirely successful.

By the early and judicious employment of these two methods much good may be accomplished and the necessity for radical interference can, in the future, be largely limited to long-standing tumors of large size, associated with adhesions or other complications.

RADICAL.

After failure of the milder measures already described the advisability of resorting to the so-called "radical cure" may be entertained. It is too much the custom, nowadays, to resort to cutting under any and all circumstances, but it is well to remind enthusiastic advocates of promiscuous operating that the "radical cure" operation is, under the most favorable circumstances, a serious one; that it jeopardizes the patient's life, and that the results are not always commensurate with the risks incurred. Statistics are quoted to show the harmlessness of the modern operation giving a mortality ranging from two to five per cent., according to the skill of the operator and the ingenuity of the reporter, but even these results are only attained by the greatest skill and under the most favorable conditions. If the operation, in all cases, effected a "radical cure" and relieved the patient of the often intolerable encumbrance of wearing a truss, its performance, even though dangerous, would be perfectly justifiable, but there is no reasonable assurance of certainty even in this. It should never, therefore, be lightly resorted to, nor its acceptance urged upon the patient without proper cause. On the other hand, though its performance may not be free from danger and a "radical cure" may not be obtained, so much benefit can be secured by a properly selected operation as to fully justify resort to it under certain well-defined conditions.

In deciding, therefore, upon the advisability of resorting to the "radical cure," each case must be considered on its own merits. The health and age of the patient, the size of the tumor, the risk incurred, the incapacitating nature of the hernia, the danger of strangulation, the distance from efficient medical aid, the inconvenience and expense of obtaining proper trusses, are all features which must be taken into account. So, also, are the local complications such as irreducibility of the protrusion, non-descent of the testicle, the supervention of a hydrocele or varicocele, and the dangers from external injury. All these increase the patient's risk, and the greater the severity of the inconvenience, pain and danger endured, the more prudent it will be to endeavor to remove them by operative interference. So, also, in irritable natures, the worry of unsatisfactory truss pressure removes the slender possibility of a cure by this means and often renders life a burden, deteriorating the constitution so as to predispose it to tendencies which shorten life. The wishes of the patient must also be considered in deciding upon the question of operative interference.

Numerous methods have at various times been employed to obtain a "radical

cure" and new ones are appearing every day, but, even now, there is not one which commands the respect of any considerable body of the profession. This is mainly due to the fact that no two agree on the essential objects to be accomplished and the best methods of securing them, as well as to the unsatisfactory results obtained. A careful study of the different steps in the formation of an inguinal hernia will indicate the only method by which the injury can be repaired. The first step is the bulging or giving-way of the parietal peritoneum, the sac of the hernia. Unless checked this gradually insinuates itself into the opening in the *transversalis fascia* forming the internal ring, causing a gaping or pouting of the lower lip. The hernial tumor then forces its way through the canal displacing the tissues of which it is composed, particularly the outer wall of the canal and, finally appears at the external ring. The indications to be met to insure success are: First, the restoration of the peritoneum to its normal condition as near as possible, so as to permit of the free gliding movement of the bowels over its surface. To accomplish this the sac should be freed from all adhesions, the peritoneum loosened for some distance around the internal ring and gently pulled down, and the whole length of the sac should then be cut away, not only to obliterate the depression on its surface, but to remove every portion of peritoneum which has become more or less altered from stretching. For the same reason the cut surfaces should be sutured together so as to present as smooth a surface as possible. When tied in a ligature there is more or less puckering which resists the free movements of the bowels over its surface. Second, the pouting of the lower lip of the internal ring should be obliterated so as no longer to invite intrusion of the bowel while the displaced external wall of the canal should be approximated to the inner wall the better to support the peritoneum and transversalis fascia. This can be accomplished by passing two sutures parallel with the outer line of the canal, as in the MacEwen operation, the upper one including the lower edge of the internal ring. In large herniæ, where the whole external wall is displaced, it would be well to insert two sutures in the same way along the inner line of the canal. In large old herniæ, where the internal ring is much dilated so as to be opposite the external ring, it will be necessary to freshen the hardened edges of the ring and suture them together with a continuous double suture. Every step of the operation should be done under the strictest antisepsis; all dead pockets should be avoided as they serve only to collect blood and serum; drainage tubes should not be used and every effort should be made to secure healing by first intention as it materially increases the prospects of success.

To be effectual and permanent, therefore, the operation must produce *obliteration* of the *hernial sac, closure* of its *ventral orifice* and *strengthening* of *those weak parts* in the abdominal parietes through which the rupture protrudes. At the same time measures must be taken to produce an improved tone of the general system, particularly of the peritoneal ligaments of the viscera, by which the power they exert in retaining the organs in their normal position is restored. The more this is accomplished, and the closer the processes of nature are imitated, the more perfect the result, but no operation can be considered a "radical cure" that does not enable the sufferer to dispense with the use of a truss.

STRANGULATED HERNIA.

The usually sudden onset of strangulation, the immediate development of constitutional symptoms of a most dangerous and characteristic nature, the mental anxiety and alarm of the patient, together with the intense pain from which he suffers, and the consciousness that, on his judicious management of the case depends the life of the patient, invest cases of strangulated hernia with an interest and importance to the surgeon which cannot be over-estimated and which demand consequently the most careful study and attention. Measures, therefore, for its reduction should be immediately adopted and should be persisted in until relief has been secured. Many lives are sacrificed every year by improper treatment and delayed interference. To the patient delay is highly dangerous; in the surgeon, indeed, it is criminal since every hour of strangulation adds to the risk which it is his duty to diminish.

Various methods have been used at dif-

ferent times to obtain relief, but, at present, the three great means on which surgeons consecutively rely to secure reduction are anæsthetics, taxis and herniotomy. Other adjuvants are also advocated.

Now the adminstration of an anæsthetic requires the presence of an assistant, and invariably produces more or less depression; while its long-continued administration is never free from danger. It is generally followed, also, by more or less vomiting and it is sometimes difficult to know whether the persisting vomiting is due to this, or depends upon imperfect reduction of the hernia.

As ordinarily used the employment of taxis is extremely hazardous. All authorities agree that the frightful mortality which now exists in cases of strangulated hernia is directly attributable to violent, ill-directed and protracted taxis and to the consequent delay in operating. Many act as if taxis consisted in directed violent pressure; it is in reality a combination of grasping, compressing and kneading which can only be acquired by long experience. When resorted to it should always be used with the greatest gentleness and for very limited periods. I believe that it should never be used for more than five minutes at a time and never more than twice. On failure of a second attempt, herniotomy should be immediately resorted to. There is a period when taxis is not only dangerous but inadmissible. When evidences of gangrene are present or threatening, when fecal vomiting has lasted for several hours with hiccough and symptoms of collapse, the use of taxis is positively contra-indicated. Even after twenty-four hours strangulation there is great danger of rupturing the bowel if the taxis be violent and prolonged. This is especially true of small, recent enterocele, particularly of the femoral variety.

Cold, in the shape of ice bags, etc., is strongly recommended, but it should never be used. Its application endangers the vitality of the already enfeebled tissues. Hot applications, on the contrary, can be used with safety, and are far more agreeable and beneficial to the patient.

Ether irrigation has been in vogue for several years in reducing strangulated hernia. Finkelstein, its chief advocate, claims to have succeeded in fifty-three per cent. of enterocele; but, in epiplocele, he admits it is of no value.

Even in the hands of experts the results of all these measures are unsatisfactory; hence, a method of treatment which is free from the disadvantages and dangers of those now in use, which is so simple that any one can use it, and so successful that all cases yield to it, must commend itself to the favorable attention of the profession. For fifteen years it has been under test, and, so far, there has not been a single failure. The patient is placed in the recumbent position, the hips raised, the knee bent on the body and the tumor supported. A hypodermic injection of morphia $\frac{1}{4}$ grain, atropia $\frac{1}{120}$ grain, cocaine $\frac{1}{8}$ grain, is at once given in the neighborhood of the rupture and repeated every fifteen minutes until the patient is comfortable. Meantime he *is made to drink* every five minutes from two ounces to four ounces of a *hot* mixture consisting of strong black coffee one pint, fluid extract of Ergot two and four drachms, and when the pulse is weak and compressible, strychnine $\frac{1}{30}$ grain. At the end of half an hour the rupture has become flaccid and disappears, or gentle manipulation reduces it. I have never had to give the second dose, nor have I had to wait over half an hour to secure reduction while the necessary manipulations never exceeded two minutes. No anæsthetic was ever used or required. If, however, there should be no change in the tenseness of the tumor the same quantity of the mixture should be given during the next half hour and, if reduction cannot then be effected, the knife should be at once resorted to.

The advantages of this method of treatment are obvious. By the injection the pain and distress are at once alleviated and confidence inspired, an important item in these cases. At the same time gastric irritability is allayed and vomiting becomes much less frequent or even ceases while the muscular tissues, freed from irritation, become relaxed. The fact that no anæsthetic is required is a decided advantage, for it prevents the employment of excessive and long-continued taxis and the injuries arising from it. At the same time it obviates the depression which its administration causes. The amount of taxis necessary for the reduction of the hernial tumor, after the administration of this mixture, is so slight and of such short duration that no injury can be inflicted upon the contents of the sac and

reduction *en bloc* is impossible; while, if operative measures are immediately resorted to, on failure of the second attempt, no unnecessary delay will be incurred and mortification of the bowel will become a rarity.

The fatal delay in resorting to operative interference is mainly attributable to the fact that many medical men do not seem to realize the dangers incurred by a continuance of the constriction and look upon the operation as a last resource, and they will not consent to its use until death is imminent. The operation itself is not a dangerous one; the condition that demands it is exceedingly so. Its performance, indeed, is harmless compared to the danger incurred by allowing the constriction to continue. Many have to deplore its performance too late; no one regrets resorting to it too soon.

These are the views I hold on the treatment of hernia and which I now submit to your kindly criticism. They are simple and within the compass of every practitioner. In my hands they have proved eminently satisfactory and their general adoption would greatly alleviate the sufferings and materially reduce the mortality amongst the victims of hernia.

SURGICAL MEASURES OF RELIEF IN STENOSIS OF THE UPPER AIR PASSAGES.*

THOMAS H. MANLEY, M. D., New York.

During the past ten or fifteen years the discussion of the etiology, pathology and surgical treatment of stenosis of the ærial passages, particularly in children, has occupied an important position in medical literature, both home and foreign.

Yet, with all that has been written on this subject, it must be admitted that the profession is in anything but accord on the most appropriate measures, either prophylactic, or remedial, in those maladies which jeopardize life through impending asphyxia or apnœa.

It was hoped with the application of the invaluable apparatus of Dr. O'Dwyer that, at last, the most formidable obstacles in the way of treatment had been forever removed; that the scalpel and tracheal tube might be laid aside, and that hereafter relief-measures would be as prompt and bloodless as they were efficient and permanent.

But it was soon discovered that, like every other relief measure, intubation has its limitations; that there is a considerable proportion of cases in which the perforated, laryngeal plug may, when introduced, destroy every possible prospect of recovery. Our aim should be, in all cases, to occupy a middle ground; as neither too zealous partisans of the one, nor uncompromising foes of the other. Some would impose so far on the credulity of their brethren as to have them believe that intubation is the sovereign remedy when applied early and skillfully. Others there are, who have cast it aside altogether. Of this latter I saw a practical proof in the Princess Augusta's large ward for children in the Frieriechshal-Hospital, in Berlin. Here their experience with intubation had been so unfortunate that they had discarded it altogether. Hence, while we all agree that divulsion of the laryngeal chink through the buccal cavity occupies an important place in surgical therapy, it constitutes but one of our resources. In the controversial side of the question, it is not my purpose, at this time, to enter.

The conditions that give rise to a mechanical impediment to respiration in the upper air passages are dependent on inflammation—infectious, specific, neoplastic and traumatic.

The fundamental principle underlying every phase of treatment, of whatever description instituted, is to secure a patent air-passage until nature has removed the barriers to normal respiration. To most safely accomplish this purpose we must depend chiefly on three agencies: First, on constitutional treatment, which is more or less applicable in all phases of laryngeal stenosis; second, on local medicative measures; third, on surgical invention.

*Read before the Section of Pædiatry, Academy of Medicine, New York, Feb. 9th, 1893.

As the surgeon's aid is seldom invoked until the time is past for internal medication, only the second and third of these agencies will be considered here.

For the first of them, there are but two substances with which I am acquainted, that possess such properties as will commend them in the majority of cases. I may add parenthetically, that unless the patient is on the border line of the moribund state, local measures should be pressed with energy for a short time before surgical intervention is resorted to.

Mercury pre-eminently occupies the first position. First, because of its well-known power as an antiseptic agent; and secondly, for its effects on the general system when taken up by absorption through the mucous membrane. It may be administered by fumigation—when calomel is incinerated; or through the spray—where we employ the bichloride solution of a strength varying from 1:500 to 1:3000 according to the age of the patient, its impression on the system, or the urgency of the symptoms. The objections to its employment are the possibility of ptyalizing the patient or salivating the nurse or attendant. Besides, though this agent possesses active bactericidal powers, it is not a deoderizer.

In many cases of an infectious or gangrenous character extending into the larynx or trachea, the ideal solution is one which is gentle and simple in its application, but energetic in action; one best tolerated and possessed of the greatest affinity for the necrotic residue of diphtheritic or other inflammatory products. To attain this end there is nothing with which I am familiar, which may be administered so continuously as the peroxide of hydrogen.

An eminent medical authority* has recently warned the profession not to use this agent in throat troubles, because, as he alleges, it may cause diphtheria itself. This view is totally at variance with clinical experience and with our knowledge of the fundamental etiology of this disease; though we must concede, if an inferior quality of the chemical is used, or it is employed in too strong solution, an exudate is formed, but this exudate must be rather attributed to its injudicious employment than to any inherent power of the drug to produce such exudate. In all cases, when we employ this gaseous agent we should be assured of its purity and standard strength; hence it is my custom to employ Marchand's medicinal, alone, when it can be secured. The inhaler which goes with this medicament, in my hands, in the hospital and elsewhere, has served an admirable purpose in pharnygeal or laryngeal affections. "The immense number of unsophisticated medical men all over this country whose anxiety is for new and effective remedies, and who are stimulated by these miserable surroundings"† may be safely trusted with the best and safest in the matter of chemical solutions, as in the selection of wines, meat juices, proprietary medicines or other pharmaceuticals.

When it appears futile to persist further with local applications, and the symptoms of approaching asphyxia are urgent, the time has arrived for prompt surgical interference. It is well known that in tracheotomies the results following, depend mainly on two factors, viz: the violence of the constitutional infection, and the manner in which the operation for relief is performed. The former is beyond our control, but not so with the latter. For, with the aids that modern surgery has placed within our reach, the technique of opening the air passages above the sternum has been greatly simplified. The elder Gross regarded tracheotomy as one of the most formidable operations known to surgery.

The dangers immediately connected with the surgical technique of a tracheotomy are:

(1) Those which have reference to pulmonary anæsthesia.

(2) Hemorrhage.

(3) Shock.

With every one who has ever administered an anæsthetic, or seen it given to one with an embarrassed respiration, it is needlessly to rehearse here the difficulties in the way. In the first stage of anæsthesia the little one violently struggles and strangles so that the anæsthetizing agent must be given intermittently. As the second stage of anæsthesia is reached a deep cyanosis sets in. With the accession of the third stage the corneal reflexes are paralyzed and the asphyxia deepened so

*Dr. A. Jacobi, Note on Peroxide of Hydrogen. *Archives of Pediatrics*, Dec., 1892.

†Ibidem.

that the operator is warned to hasten on or death will quickly end the scene. But our patient is a child, and it is a matter of common observation that children, proportionately to their age, take a large quantity of anæsthetics and come from under their influence very quickly. Hence, under the circumstances here considered, the circulation already toxemic must be further super-saturated with another lethal agent, and along with this, the fear of the patient's returning consciousness hurries the surgeon on with the procedure in which it is always imperative to proceed with caution and deliberation. Anæsthesia is, it must be admitted, one of the positive dangers in opening the trachea.

Without question the next difficulty in this operation is profuse hemorrhage. Here the escape of blood is dangerous in a dual capacity. First, through mortal anæmia, and next through leakage into the trachea inducing fatal asphyxia, or by being sucked into the bronchial radicles and causing septic pneumonia. As the trachea in the child is deeply lodged beneath an immense network of blood vessels which lie immediately under the skin, the deep cervical fascia and over the thyroid isthmus, the division of the deeply situated parts is not unlike the splitting of a saturated sponge. Nevertheless, if ample hæmostatic precautions are observed, after the first gush in penetrating the deep cervical fascia, it will be slight and will neither annoy the operator nor endanger the patient.

In May 1890, Paul Réclus, in the *Gazette Hebdominaire*, published his remarkable contribution on "Cocaine analgesia." The year preceding, Prof. W. W. Dawson had presented an able essay entitled "Bloodless Tracheotomies."* Although Réclus reported more than two hundred cases in which he had successfully operated under cocaine, he mentioned none for tracheal stenosis. After I had carefully read the essays of the both the Ohio and the French surgeons, it occurred to me that, by a combination of both expedients, the ideal tracheotomy operation was at last secured. Within one month of the publication of Réclus' essay I was favored, at the Harlem Hospital, with an opportunity of testing for the first time, and estimating the full value of, a surgical procedure which I have designated "Tracheotomy by the Réclus–Dawson Method."

I, personally, claim nothing for myself in connection with this invaluable device, save in evolving a new operation by a combination of analgesia with hæmostasis, and priority in being the first to operate by this method and to publish its history and technique. This I did in the *Journal of the American Medical Association*, September, 1891.

Though I have had four opportunities of employing it in the adult, up to this time I have had but one child, an infant, on which to test its merits. This was a patient of Dr. Murray's, but two months of age, which was suffering of submucous tubercular abscess of the larynx. All my patients recovered.

In a nutshell, its technique is as follows: Rigorous antisepsis; a one per cent. solution of hydrochlorate of cocaine hyperdermically administered after Réclus' plan; the drug hypodermically employed, never to exceed the maximum dose by the mouth. I always douche the surface of the integument, either by a spray from a siphon of carbonated water, or else pour cold water from a height, which accomplishes the same end, before I make the first incision. The cocaine injection serves a triad purpose in these cases; first, as an analgesic; secondly, as a cardiac stimulant, and thirdly, as a styptic or hæmostatic. In these cases which we tracheotomize for infectious or acute inflammatory obstruction, and in which patency of the opening is but a temporary expedient, I am confident that the best tracheal tube is none at all. In this infant of two months, by passing two sutures through the divided tracheal walls on either side an ample air vent was effected.

I am confident that as the new procedure is more generally adopted, tracheotomy will regain its lost ground. For by it, when it succeeds, deglutination is not interfered with, perfect drainage is secured and the inconvenience and danger always attendant on tubation of any description, is obviated. It is unnecessary to add that by it, too, the dangers of collapse and shock will be minimized.

* *Jour. Amer. Med. Ass'n.*, July 13, 1892.

She (in a carriage)—An eminent physician objects to tennis because it is a one-armed sport. He (driving with one hand)—Nonsense. So is carriage riding.

CLINICAL LECTURES.

PNEUMONIA: GALL STONES.†

JOHN A. ROBISON, A. M., M. D., CHICAGO.*

GENTLEMEN: The first case I show you is a night switchman, who has been exposed to the frequent changes of weather that occur during the night, and more especially to the dampness of the Chicago climate. On the 21st of December he was awakened in the afternoon about 4 o'clock with a severe chill. He sleeps in the day time. This chill lasted for some hours. He had pain in the right side centering about the region of the nipple, and radiating from that region. This was followed by a high fever and within twenty-four hours a cough supervened. In about four days thereafter he began to expectorate a bloody tinged sputum. He went through probably the first and second stages of pneumonia, and was brought to the hospital on January 6th. At the time of admission his pulse was 114; temperature 101.8°; respiration 44. This was at 6 o'clock in the evening. At midnight his pulse was 104; temperature 101.2°; respiration 52. Upon examination we found consolidation of the upper lobe of the right lung, there being slight loss of motion on inspection and slight dullness of percussion; bronchial breathing and bronchial voice. The expectoration was characteristic of pneumonic inflammation. The next day, in the evening, his pulse was 96; temperature 99°; respirations 40. The next morning at 4, pulse was 72; temperature in the axilla 97.8°; respirations 32. At midnight pulse was 88; temperature in axilla 99°; respirations 24. The next day, at 1 A. M. temperature was 98.6°; respirations 20. Since that time he has had no rise of temperature; his pulse varies from 72 to 80, and respirations from 20 upward.

The case arrived at the hospital during the stage of convalescence. It would be interesting to have a complete history of this case from its inception. His symptoms were first a severe chill, then pain of the part affected and high temperature for seventeen days. He had the lysis before the seventeenth day, and then a crisis on the seventeenth day. In pneumonia there is generally a high fever from four to twelve days, then it lessens by lysis or drops suddenly by crisis.

The stage of convalescence is well established in this case and there are few physical signs. The evidences by inspection are *nil*. There is no cyanosis; his respirations are normal; there is no loss of motion on either side, and the dullness has almost entirely disappeared. I have drawn a line down to the point where dullness disappears. If you percuss from the apex downwards you will notice dullness until you reach this line, below that you get normal resonance. I have marked this point where we get pronounced bronchial breathing and bronchophony. He still expectorates a sputum slightly tinged with blood and purulent in character.

The treatment in this case has been the ordinary treatment by the cotton jacket and the giving of easily assimilable nourishment. On admission he was placed on five grain doses of muriate of ammonia with half an ounce of whiskey every four hours. Two or three days afterward he was placed upon the iodide of potash, two grains three times a day; for tonics, iron and strychnia. The iodide of potash was given as an alterative and also to facilitate expectoration, and the tonics to promote nutrition.

GALL STONES.

This patient was admitted to the Presbyterian Hospital on the 30th day of December. She is 34 years of age, American by birth, married, has had three children, previous history and family history both good. The present illness followed an attack of typhoid fever in November 1891, the typhoid fever lasting 13 weeks. From that time till the last of September the patient had not been in very good health. The present illness commenced with itching all over the body—no pain—followed

†Delivered at Rush Medical College, January 12th, 1893.

*Attending Physician to Presbyterian Hospital; Professor of General Medicine, Post Graduate Medical School; Adjunct Professor to Chair of Practice of Medicine, Rush Medical College, etc.

by an icteric discoloration of the skin. She also had diarrhœa, with fever. The stools were clay-colored. The eruption over the surface of the body first resembled the scarlet fever eruption. She has also had previously two attacks of colic due doubtless to gall stones. On admission to the hospital she was intensely jaundiced. Over the region of the gall-bladder or duodenum there is quite an amount of tenderness.

We have here a case that may be either a catarrhal inflammation of the gall duct or of the duodenum, or, it is more likely, a case of impacted gall-stones, because she has had several attacks of colic which seemed, at the time to be induced by gall-stones. These gall-stones enter the ductus choledochus and lodge there, producing the attacks of colic, jaundice and tenderness over the region of the gall bladder. An operation for the removal of gall-stones is the only radical treatment, and this leads me to speak of the uselessness of giving medicines that have an alleged solvent action on biliary calculi.

A few years ago I was called to see a case of impacted gall-stones where the patient, a lady of middle age who had been an invalid for several years and was just recovering from the results of an operation for abscess of the right kidney by our late lamented Professor Parkes, was suffering intensely from pain, intractable vomiting, and localized peritonitis. Her family physician was summoned from the country resort where he had gone for recreation and a surgeon was called in counsel. There was no difference of opinion as to diagnosis, but an operation was deferred until medical treatment could be tried further. The result was the patient soon died, and the autopsy demonstrated that an operation would have relieved the suffering, if not saving the patient's life. There was an adhesion between the gall-bladder and parietal peritoneum, and several gall-stones were found impacted in the gall-bladder, and in the ductus choledochus a very large stone was found lying adjacent to the hepatic artery, and ulceration of the wall of the artery had taken place from pressure until there was almost a perforation into the artery.

On admission this patient was placed on five-grain doses of chloride of ammonium. The reason for giving it, it is supposed to be efficient in gastro-duodenal catarrah, or in a catarrhal inflammation of the bile ducts. Recently she has been placed upon five to ten-grain doses of benzoate of sodium, to lessen the jaundiced condition of the skin. It has been combined daily with hot alcohol baths, producing a large amount of perspiration. I think there has been improvement in the condition of the patient. The bowels move daily, the appetite is good, and the color of the skin is better.

If this patient should have any recurrence of colicky attacks, cholecystectomy will be performed.

COMMUNICATIONS.

SOME INTERESTING OVARIOTOMIES.*

L. S. McMURTRY, M. D., Louisville, Ky.

Some years ago Mr. Tait said that the last words had been uttered on the subject of ovariotomy; that there was nothing more to be said; that the mortality was reduced to the least of any major operation known in surgery, which is true. But ovarian tumors are so common and present such a diversity—dermoid, parovarian, multilocular and poly-cyst, etc., with their variations and complications—that they prove of continuous interest.

In the first place in regard to ovariotomy in the aged, there are very few major operations that any of us like to undertake in very old subjects, operations where there will be a very heavy strain on the system, great danger of shock, and where there will be a great deal of traumatism to vital organs in connection with the operation; all dangers are very much exaggerated in the aged.

*Read before the Clinical Society of Louisville Jan. 10, 1893.

Last October I operated for a very large double ovarian cyst in the case of a lady from Kansas, seventy-two years old. The tumors were so large (I only suspected one tumor when beginning the operation) that they extended to the diaphragm; abdomen distended so that the skin was shining, the umbilicus pouting and the condition of the woman was distressing. She said that her journey from Kansas to Louisville was the most trying ordeal through which she had ever passed. The operation disclosed very extensive intestinal and bladder adhesions which are always difficult to deal with, especially so in cases where they are old and firm. The pedicle of the large tumor on the left side was one of the largest that I have ever dealt with; it had to be quilted with a double ligature and another ligature around. The patient made a smooth and easy recovery.

Another case, referred to me by Dr. J. M. Krim, is a lady who will be seventy-two years old in March. When I first saw her with Dr. Krim, we made diagnosis of ovarian cyst as most probable, although neither he nor I could say positively that it was ovarian because we could not get any fluctuation of the tumor. We had the patient moved to the infirmary; she had vomiting, rapid pulse and high temperature; her abdomen was opened and we found an immense cyst on one side and, like the other case reported, a smaller cyst on the opposite side. The large cyst was of a dark-bluish slate color; there were a great many adhesions and new adhesions were forming. Peritonitis was active around it. After tapping the larger cyst to get it out, we found that the pedicle was twice twisted, the circulation being shut off from the sac; it was sloughing, and peritonitis active. The interior of the tumor was filled with clots and dark colored fluid the result of hemorrhages in the interior from obstruction of the circulation by this twisted pedicle. We removed both tumors, the cavity was thoroughly irrigated and drained, and she made one of the most prompt recoveries that I have ever known. There was not an untoward symptom of any kind.

These two cases are very interesting as confirmatory evidence of the especial fact that ovariotomy is the most successful major operation known to surgery. I believe that much of this is due to the fact that ovariotomy is largely in the hands of a few surgeons, and that the statistics of ovariotomy are furnished mostly by surgeons who have had large experience and have acquired results which can only be attained by careful attention to all details of the operation.

I will mention another ovariotomy: A young lady twenty-one years of age, unmarried, was brought to me from Daviess County, Kentucky, the latter part of October, with ovarian tumor. Diagnosis was clear. She was very ill when she arrived, and when I took her temperature it was 103.5° F., with a rapid pulse. That night she had persistent vomiting, which on the following day became of that character which belongs to peritonitis—green serous vomiting. On the second day I found her in such a serious condition, evidently from peritonitis—high fever, very rapid pulse and vomiting—that I decided to operate at once. I found a very large ovarian tumor extending up to the diaphragm, a multilocular cyst, with double twisted pedicle and with a sloughing sac. In separating the adhesions with my finger the sac ruptured and the pus contained in the tumor ran out over the table. I should judge that at least a gallon of pus ran out of the tumor. As is usual in these cases, there was a smaller cyst on the other side. The cavity was thoroughly irrigated with about three gallons of water and the patient put to bed with very considerable shock. She reacted very well and the pulse came down to 120 in six hours after operation.

The next morning the nurse telephoned me that the patient was bleeding at the nose. I thought this was merely an accidental circumstance. When I took the temperature the next morning it was 101.5° F., pulse still rapid, over 120. She had a red spot on either cheek, and presented a very unfavorable appearance. During the day delirium occurred and that evening her nose bled again. The next morning examination of the body disclosed rose-colored spots, diarrhœa had come on, and I found that I had done an ovariotomy in the midst of an attack of typhoid fever. She went on through this attack, but so far as the ovariotomy was concerned the result could not have been better had she been in a perfectly afebrile condition. She was five weeks in the infirmary with typhoid fever of a characteristic type. It was a very severe attack and

the temperature went up afterward to 104.6° F. She has now fully regained her health.

I merely mention this to illustrate another complication of ovariotomy and to still further confirm Mr. Greig Smith's statement that it is the "most successful major operation in surgery."

STRICTURE OF THE RECTUM.*

J. M. MATTHEWS, M. D.

About eight months ago I was called to see a lady thirty-two or thirty-three years of age, a widow, who, upon examination, revealed an excessive infiltration and stricture of the rectum extending, I should say, for six inches up the gut. At that time I knew nothing about the history of the woman. The evidence to my finger inclined me to the belief that it was syphilitic, though, taking her station into consideration, I would have doubted it if I had not seen many cases in women where virtue was not to be questioned. So I avoided giving a positive opinion as to the nature of this infiltration. I ascertained that she had had trouble with her husband and left him, and a relative told me that the man during his married life had syphilis, which is confirming evidence that my opinion was correct.

Now, as there is a pathological question which arises here, I want to state or rather reiterate, my opinion about the etiology of stricture of the rectum; that is, that the vast majority of strictures is produced by syphilis, and if I see a stricture of this portion of the gut that is not syphilitic, I strongly incline to the belief that it is cancerous. And vice versa, if I see a case that is suspected to be cancerous and it turns out not to be cancer, I am on record as saying, and still say, that I believe it to be syphilitic in the majority of patients. I do not want to be understood as saying that I believe all strictures of the gut that are not cancerous are syphilitic—I am misquoted in that particular and have tried to correct the matter in the Societies, etc., but there are some who will not hear it. My position then is this, and the case in question is one that will bear me out, that if the evidence, clinical history, etc., goes to prove that a stricture of the gut is not cancerous, then it is generally syphilitic.

*Reported to the Clinical Society of Louisville, Jan. 10, 1893.

Now this woman was, or had been, married; was then a widow; I knew nothing of her clinical history, nothing of her married life or surroundings, and I believed that she was suffering from syphilitic stricture. Naturally it would be asked why I supposed so. Upon this point I wish to say that there is evidenced to the finger a peculiar condition of affairs that attends syphilis or syphilitic infiltration of the gut, that does not obtain in any other character of affection that would produce, by its pathological changes, a stricture. I found in this woman's rectum a fibrous, non-yielding, hard stricture or infiltration—I do not know that the word hard should be used, because it so closely simulates the nodule that is sometimes felt in cancer. When the finger is introduced into the rectum, so far as it is inserted this stricture or infiltration does not give way, does not bleed; there is no especial odor or anything of that nature. This in contra-distinction to the cancerous infiltration which, usually at least, does give way to force, often has that peculiar odor of cancer, together with the other histological evidences that are brought about, or exist in such cases.

This woman had that condition. The patient was put under chloroform and I broke this stricture. I know my position in that one particular has been criticised. Men who are authorities in rectal surgery say that it is a dangerous procedure to break a stricture of the rectum. The majority of those who write upon the subject claim that gradual dilatation is the best method. I am so thoroughly persuaded that this position cannot be maintained that I never practice gradual dilatation of any stricture of the gut, be it benign or syphilitic—and I make the distinction between benign, syphilitic and cancerous stricture of the gut. They claim that breaking the stricture is dan-

gerous because it produces great shock. I have only seen one single instance where great shock attended it. They claim that you may tear the gut, as my good friend Bauer, of St. Louis, says, into tatters. I claim that by breaking the stricture we accomplish more in one minute than we could in one year by dilatation. This lady went on and it is needless to say she improved, because she had suffered before this operation with obstinate constipation. She could not have a free evacuation of any reasonable amount at all when I operated upon her. After that she had full, free evacuations for a number of months. Consequently her general health improved. After a lapse of some time I was summoned to this woman again, and I found, what I find in all cases of syphilis of the rectum, a re-constriction. I maintain that stricture from syphilitic causes is just as incurable as cancer. I do not think one was ever cured in the world. I do not believe that iodide of potassium can cause the absorption of a syphilitic stricture. I proposed to the family of this woman to do a different operation. I submitted the possible necessity of a colotomy assuring them that she could never get any better, at least could not recover, by breaking the stricture; I saw in the case, if it be syphilis, great advantage in a colotomy. They told me to submit it to the patient—she was a very sensible business woman—I submitted the proposition, and she gladly accepted it and appointed a day for me to do the operation upon her.

In the interim, on re-examination, I found in addition to this close constriction, a deposition of material extending likely into the sigmoid flexure, and at that sitting I also examined her uterus and, to my surprise, I found the womb in such condition as to persuade me that it was cancer.

Now a question arose in my mind, and it is the main question that I wish to smbmit to the Society: Was I wrong in my first conclusion? If this woman had a cancer of the uterus is it not simply an extension from the rectum? Or, as I am more inclined to believe, and it is a pathological question that I have never been able to settle in my own mind, is it not true that she may suffer from this syphilitic deposit in the rectum and that it has undergone a cancerous degeneration? I was not willing, therefore, to rest the case upon my own opinion and asked her to see a gynecologist. Dr. L. S. McMurtry kindly examined her and informed me that there was excessive cancerous disease of the uterus; and I said to him at the time if that was true I did not believe colotomy was advisable. I will not occupy time giving my reasons why colotomy was not justifiable, nor the advantages of performing a colotomy in that condition. I was compelled to say to this good woman that I did not believe even the *dernier-ressort* of colotomy would benefit her at all. She is a good Christian woman, accepted the burden and is prepared to die.

This is the condition of the patient today, and the main point I wish to raise is, do these syphilitic deposits, or does syphilis, degenerate into cancer or malignancy? I believe that I was correct. I am persuaded that it was syphilis of the rectum in the beginning. She gave a syphilitic history, after I ascertained from other quarters that her husband had syphilis. The evidence is clear and positive that it was a case of syphilitic stricture of the gut, and yet I find cancer of the womb. It is a strange coincidence if the woman is suffering from cancer of the uterus and at the same time syphilitic deposit of the rectum.

Bugs and Bug Poisons.

Ever since Koch, some ten years ago, promulgated his famous dicta about the germicides, the majority of doctors have concurred in the belief that the bichloride of mercury is the disinfectant *ne plus ultra* and *sine qua non*. Another eminent bacteriologist, however, now bobs up and asserts that the bichloride of mercury is no good on bugs whatever, or words to that effect. Thus do the old faiths change, but come what may, we shall cling to $HgCl_2$, for does it not salivate the bugs, and if it salivates them then can they no longer procreate, and if they cannot procreate, why, of course, their name is Dennis Bacillus.—*Denver Med. Times*

"Papa," said Wallis, "I wish you'd tell me a story."

"Very well, Wallis. What shall it be about?"

"About four hours long," said Wallis.

SOCIETY REPORTS.

THE SURGICAL SOCIETY OF LOUISVILLE.

Stated Meeting Jan. 9th, 1893.

The President, Dr. A. M. Cartledge, in the Chair.

DISCUSSION ON APPENDICITIS WITH REPORTS OF CASES.

Dr. A. M. Vance: This gentleman is forty-two years of age; some time in September last he was taken with constipation; he was attended by Dr. H. M. Goodman; about the tenth day after the attack I was called in consultation. During the first ten days of his illness there had been considerable pain referable particularly to the appendicular region, but when I saw him there was no severe pain, not much tenderness, not much tumor. However there was some swelling in the ileo-cæcal space, evidence of pain on deep pressure, and some tumefaction, Forty-eight hours afterward I opened a large abscess in the right loin, making an incision about the middle of the ileo-costal space, the man was then in delirium, it being almost impossible to hold him in bed. Quite a quantity of very offensive pus was evacuated together with considerable fecal matter, also this appendix vermiformis, which had separated spontaneously, and a number of enteroliths which were not preserved. These enteroliths were very hard, about the size of a lead pencil, and two inches in length. Evidently when Dr. Goodman first saw this case there was a circumscribed abscess around the appendix, which afterward ruptured into the post-peritoneal space. The patient made an uninterrupted recovery and is here this evening to show the result of the operation.

This case illustrates a point which has been often questioned, viz: that the appendix does sometimes slough off into the post peritoneal space. After the operation and before the wound closed, a good deal of material came away looking like coffee grounds, and also a piece of egg shell about half the size of your finger nail. The quantity of pus removed was about 1½ quarts.

No. 2.—This patient is a man whom you all know, and who had a history, prior to my seeing him, of two attacks of what was supposed to be appendicitis. Dr. John Barbour was the attending physician in each attack. I saw him first early in the summer just as he was getting over an attack which passed away after the usual medicinal treatment. I saw him again early in October in a second attack and at that time, the family having repeated the medication used in the former attack, he was convalescent. I told him if he had another attack to advise me and I would operate upon him. I was called suddenly about a week after this, the message being that this patient had fallen on the street near the *Courier Journal* building, was in great pain and unable to walk. I sent my assistant, Dr. Rice, immediately to the scene. He found the man suffering with severe pain on the right iliac fossa and apparently unable to move. He gave him ½ grain of morphine hypodermically, telephoned for a conveyance and had the patient taken to his home. I went out at once and when I arrived found the man in convulsions, with pain paroxysmal in character, and being held in bed by Dr. Rice and two or three other men. We administered chloroform and made the ordinary incision over the appendix. It was with considerable difficulty that we located the appendix, it being very far back and high up, and when first discovered I thought it was very large.

Upon further examination it was found that the appendix was enveloped in a coil of omentum or fat which accounted for its apparent increased size. The appendix was about the size of a lead pencil and seemed to have nothing in it, particularly from the appearance outside. I excised it, however, and you will see here the remains of it. I have on the slide of the macroscope a section, the diseased condition of which can be easily determined by microscopical examination. After dressing the case I opened the lower part of the appendix and ten to twenty drops of muco-purulent material came out. No

drainage was used in this case; the man has recovered and has had no further trouble. Operation done October 4th.

No. 3.—Here is a little boy I saw I think in August. He had then been sick five weeks, and had been losing ground all the time, with evidence of a large abscess in the right iliac fossa. Dr. Hays had attended him and, upon leaving the city for a brief period, directed that a surgeon be called. I believed from the history of the case that it was the result of an appendicular abscess; took the patient to the Childrens' Hospital and opened it, evacuating a large amount of pus from the post peritoneal space. The thigh was flexed almost at right angles and could not be extended, but came down gradually after the abscess had subsided. He has now become perfectly well. In the operation I did not look for the appendix as it was post-peritoneal. The peritoneal cavity was walled off in this case.

I have three other appendices, with sections on the slide of the microscope, which I would like to have you examine. The first is a normal one. Second is an appendix removed from a patient of Dr. McDermott's. The history was that the patient was perfectly well on Sunday at dinner; Sunday night he was taken sick with abdominal pains; all day Monday he vomited and continued sick with abdominal symptoms; Tuesday he had very high fever, abdomen tympanitic. On Wednesday night at eight o'clock I was called and told him I thought he had a case of appendicitis; that perforation had taken place as the man had general peritonitis, and advised early operation. This was consented to after several hours delay. I made the ordinary incision and turned out a gangrenous appendix which had ruptured; the abdominal cavity being filled with pus and fecal matter. The cavity was thoroughly irrigated and the patient put to bed with considerable shock. He seemed to rally, however, the next morning he appeared to be doing well, but after that time he sank and died of septic infection in twenty hours. I believe if this patient had been operated upon sooner he would have been saved; showing the importance of formulating some rules in order to determine just when operative procedure is called for. Here is another specimen removed on Sept. 16th., Dr. Dugan assisting. The appendix had just gotten to the softening point, evidently would have perforated in a few hours more. There was a hood of omentum formed over it, making a perfect covering. This man had been sick only twenty-four hours. Has made a perfect recovery.

DISCUSSION.

Dr. W. O. Roberts: The first case reported by Dr. Vance is exceedingly interesting. There was considerable material, not only pus, but fecal matter in the cavity of the abscess. After evacuation the fecal matter ceased to escape entirely. We meet with cases of this character sometimes in which fecal matter escapes for a time after operation, then stops; in this case it seems to have ceased at once. It is a little unusual with sloughing of the appendix to get such prompt union as to prevent the escape of fecal matter.

The second case is also interesting. It seems that every attack the patient had came on very suddenly. The narrator did not state how long they lasted. I saw the appendix soon after it was removed, and as Dr. Vance says, there was a good deal of fat about it. The only evidence of trouble that we could detect at the time, was that the appendix seemed to be thickened. The doctor says under the microscope, however, it shows unmistakable evidences of inflammation. The man has now gone longer than he did before operation without a similar attack, and I hope he will be permanently relieved.

Dr. H. H. Grant: There is one point I would call attention to. Dr. Vance reports two cases in which the abscesses were found outside the peritoneal cavity, though the focus in each instance was clearly within the cavity. These illustrations strengthen the position of later pathologists that these abscesses always have an intra-peritoneal origin, no matter where the products of the inflammation are found. The question of the pathology of these deposits is the key to the treatment, hence every light on the subject is to be made use of in the appropriate application. The subject of appendicitis is too much contested to admit of settlement in these discussions, and though it were easy to talk at length of it, it is unlikely we can arrive at any definite conclusion.

Dr. W. C. Dugan: The subject of appendicitis, of course, is one of great interest to all. The first case reported by Dr.

Vance is one of especial interest to me, and I have come to the conclusion now that most all of these cases die from suppurative peritonitis. Very often gray patches are observed over the cæcum, colon and intestines, and I believe that these cases are almost uniformly fatal. I remember two cases I have operated upon presenting this condition, where the patients seemed to bear the operation very well, but afterward died of septic paresis —seeming to have paralysis of the vaso motor system.

The second case is also very interesting, showing so little evidence of disease and yet the symptoms were very much aggravated. I remember a case I recently sent to the Norton Infirmary from the city hospital. A patient who had been treated in Chicago, then stopped here on the way south and had several attacks of abdominal trouble, closely following each other, at the city hospital. At the Norton Infirmary I opened the abdomen and, as expected, found the appendix filled with pus, but, to my very great surprise the cavity was found to be entirely free from any inflammatory process—it was simply a cold abscess. The patient was very promptly relieved by the operation, and left the Infirmary in a short time.

Dr. L. S. McMurtry: The subject of appendicitis has received a great deal of attention in medical journals and society discussions during the past two years. It is natural that it should, both on account of the vital importance of the subject and the fact that our knowledge of the disease, its complications and severe mortality, and its successful treatment are the work of American surgeons. Ovariotomy and the foundation of abdominal surgery laid thereby, together with appendicitis and its operative treatment, are among America's great contributions to surgery. While appendicitis has been so freely discussed and written about of late, there is much yet to learn of the disease, and the rules guiding operative interference are by no means clearly established. Appendicitis is the most common cause of peritonitis in the male and, if we study the mortality reports of any of our cities, we will realize how common is the disease by the frequently recorded lists of males dying of peritonitis.

I do not know how I can contribute anything to the interesting discussion of the evening better than by exhibiting a specimen and reporting some cases illustrating the several phases of appendicitis.

No. 1.—Here is a vermiform appendix which I removed by abdominal section one week ago yesterday. It is the largest appendix I have ever seen; it is as large as a section of the distended ileum; thickened by inflammatory exudate. It ruptured at this point. At least three ounces of foul pus were poured into the peritoneum. The case from which this appendix was removed, has a history which I would ask you to contrast with that of another case which I will relate further on.

The patient is a woman, aged thirty-four years. She has been ill more than a year; being confined to her bed for days, and then up and about for a time. For several weeks prior to her removal to this city last Saturday week, she was confined to bed with acute peritonitis; she had a temperature of 104° F.; pulse 130; sweating copiously, and a distended abdomen. I opened the abdomen in the right semilunar line and evacuated a quart of foul pus and, after separating adhesions, removed this large appendix, irrigated with two gallons of hot water, and packed the iliac fossa with iodoform gauze. She reacted well; the pulse and temperature came down promptly, and she is now convalescing smoothly.

No. 2.—Now compare the case I have just mentioned with one that I saw in Georgetown, Ky., last Monday, in consultation. A gentleman fifty-four years of age, who occupied a very distinguished position in the educational affairs of Kentucky. He suffered with la grippe and had been in bad health for two years. He traveled in Europe last year for his health. He was taken sick one week ago last Friday; his physician was called, and the patient seemed to be suffering from an attack of colic. The next day he had a little pain and complained of a symptom that I have seen in a number of cases of appendicitis, very severe pain in the head of the penis and retraction of the testicles. He went along in this way until Friday evening when he was taken worse, still suffering from the pain in the bowels and constipation; he had a temperature of 100° to 100.5° F.; the pulse never went above 100. His physician, Dr. J. A. Lewis, recognized the serious character of

the disease. I saw him first on Tuesday of last week; the bowels had moved in response to an enema; there was no tumor in the right iliac fossa; there was a little resistance of the abdominal muscles on that side, but they were not rigid. He had a pulse of 88. I saw him again the next morning and he seemed somewhat better; bowels had moved, he had taken some nourishment; pulse 82, abdomen softer; no tympany, no tumor, and the fever seemed to be subsiding. That morning I took the train and came home. At nine o'clock that night I received a telegram to come immediately as the patient was very much worse. An hour afterward I received a second message not to come, the patient was dead. A post mortem was made and perforative appendicitis with abscess was the cause of death.

Contrast this history with that of the first case reported by me, where the woman had been sick a year, and where the appendix had undergone all of these pathological changes which we see are very extensive.

Of course the most important feature in connection with this subject is, when should operative interference be resorted to. Prevailing professional and public sentiment will not support a surgeon in operating in a case like that of the gentleman at Georgetown. There is little risk connected with the operation in skilled hands, and I believe, if we had opened this man's abdomen, we might have saved him, although his general condition was very unfavorable for resisting any disease or repairing any injury. I would invite attention especially to the fact that there was no tumor, very slight elevation of temperature, pulse under 100; nothing to indicate perforation and abscess save pain, retraction of testicle and pinched features. The diagnosis of appendicitis was made positively, and this case adds to the facts already recorded, that an operation should be done when a diagnosis of appendicitis is established. The risk of waiting for symptoms is far greater than that of the operation.

Dr. W. H. Wathen: I will allude briefly to one or more of the cases that have been reported, and give my experience in connection with cases of this character. It is difficult to decide in many of these cases when to operate, because of our inability to make a correct diagnosis. Persons who are engaged in this kind of surgery, or in abdominal or pelvic work are constantly reminded that when the abdomen is opened they find a condition that they had not expected, and that which they had expected is often entirely absent. I have seen a number of cases, where the subjective and objective symptoms indicated appendicitis better developed than in most of the cases upon whom laparatomies have been performed, who recovered permanently without operation; or in which the diagnosis was not correct. Some of these patients had a temperature from 101° to 104° F., obstructed bowels, rapid pulse and a well-marked tumor the size of a large orange in the location of the appendix. I saw one of these cases before any operations for appendicitis had been performed. She made an uninterrupted recovery and now, twelve years afterward, is perfectly well and has had no symptom of a recurrence. Another case: a banker in this city, three years ago had a tumor larger than a goose's egg in the appendicular region, with pulse 120, temperature 103° F., and all the symptoms of appendicitis. He was not operated on. In seventy-two hours the tumor had disappeared and his temperature and pulse were normal, and within less than a week he made a trip to Knoxville without inconvenience. He has had no symptom of a recurrence of the disease. I operated upon a patient last summer, who had had three attacks of what was diagnosticated by excellent physicians appendicitis, and upon one or more occasions the several doctors in attendance decided that she could not recover; she vomited fecal matter; however she did recover from these attacks, and in the operation the appendix was found to be perfectly healthy. But there were extensive peritoneal adhesions binding large coils of the intestines together, probably caused from an injury she received three years before when thrown from a buggy. I could report a great many instances of mistaken diagnosis where the symptoms were just as marked as it is possible for them to be.

While appendicitis is usually intra-peritoneal it is sometimes extra-peritoneal, as in the case reported by Dr. Vance. These are rare cases, but they do occur. Extra-peritoneal abscess in the right inguinal region with no involvement of the appen-

dix is sometimes reported as appendicitis. These abscesses do not always point in the same direction. I have seen several cases where the abscess pointed toward the buttock, and in one case, when it was opened, I could introduce my finger deep in the pelvis between the bone and Poupart's ligament. This abscess contained nearly a gallon of pus. I am sure the appendix was not involved. About the only positive evidence that the appendix is involved is the fecal matter in the abscess. Recently I treated a case of this kind where the pulse was 140, and the temperature 105° F., with a well-marked tumor; all the symptoms having existed for ten days. I made the usual incision and removed a pint of pus in which there was a fecal concretion the size of the end of my little finger, showing that the trouble was the appendix. Had there been no fecal matter in this case no one could have said positively that it was appendicular in its origin. This case, like one reported by Dr. Vance, had no further fecal matter in the cavity. It was packed with iodoform gauze and the patient made an uninterrupted recovery, having no elevation of temperature the morning after the operation.

In the case reported by Dr. Vance—in which the gentleman was attacked very suddenly and fell—I am inclined to the opinion that it was not appendicitis, for, if the appendix is not normal, it is so little diseased that it could not have caused such symptoms as were manifested, particularly the suddenness of the attack. I believe there will be similar attacks in this case.

Referring to the Georgetown case it is probable that the trouble was appendicular, but that could not be proven without a post mortem examination. For as I have remarked the subjective and objective history of these cases very often will not enable us to come to a conclusion that is always correct.

Dr. A. M. Vance: To what other cause would you attribute the acute peritonitis with the tenderness, tumor, etc., in the right iliac fossa of the male, except the appendix?

Dr. W. H. Wathen: It might have been caused by a pelvic or abdominal abscess with no involvement of the appendix, psoas abscess, renal or peri-renal abscess, abscess of the liver or gall bladder, etc. It is one of the difficulties that we have to labor under in these cases to determine exactly what the nature of the trouble is. As a result we operate where the operation is not indicated and, again, refuse to operate upon cases that require surgical interference.

Dr. C. W. Kelly: As regards the relation of the peritoneum to the cæcum and appendix vermiformis. Very frequently it is found that the peritoneum embraces only one half of the cæcum as it extends around the appendix; occasionally it entirely surrounds the cæcum and the appendix vermiformis, occasionally it goes entirely over the cæcum so that it may be either an intra- or extra-peritoneal structure. The appendix has a small mesentery of its own, which may not entirely close behind.

In regard to operative procedure for appendix I want it understood that I am an advocate of surgical interference in these cases when it becomes necessary, but the most important point is to determine just when it is a necessity.

Dr. W. C. Dugan: I would like to call attention to another symptom which is sometimes present in appendicitis, and that is cystitis. I have seen several cases having this symptom. I think there is no mention in the text-books up to 1884, of involvement of the penis or bladder in appendicitis.

Dr. A. M. Cartledge: I was very much interested in the cases reported by Dr. Vance, and am not inclined to say that we are discussing appendicitis too much. I fully agree with Dr. McMurtry that a classification should be made of these cases by which we can have some rational means of determining cases demanding operative interference, and the time at which the operation should be done. As surgeons, I think we are all indebted to Professor Kelly for the correct position he has taken; we are also indebted to Treves for his valuable work upon this subject. Read any medical journal and we find almost as many opinions expressed as there are writers in regard to the operation for appendicitis, whether the abscess is intra- or extra-peritoneal, etc. In regard to Dr. Wathen's remarks, I think it has been fully demonstrated that the appendix may be the offending organ, whether the abscess is intra- or extra-peritoneal, and that in either

case we may have fecal matter in the abscess. The appendix is usually found to have a mesentery, but frequently it is held in place simply by a band of connective tissue posteriorly, and it may rupture either posteriorly or anteriorly through the peritoneal covering, and you can have a fecal abscess either intra- or extra-peritoneal.

Concerning the case reported by Dr. McMurtry, in which he says the trouble was appendicular in origin and that large quantities of pus was evacuated. In most cases, especially those that recover, we have a circumscribed peritonitis and the abdomen proper is not opened. I believe that where you have rupture before protecting adhesions or walls are formed, in ninety cases out of a hundred, though operation is performed and the cavity washed out, the patients will die from septic infection. I believe every case characterized by acute pain, like the case reported by Dr. Vance, where a man fell on the street, is going to be followed by rupture of the appendix and early operation is imperatively demanded. I believe that pain is our chief guide in these cases, and of more importance than elevation of temperature or tumor. I saw a case recently with Dr. Chenoweth, where a man had several recurrent attacks of appendicitis from which he apparently recovered. He came to the city one morning and was taken suddenly with severe pain in the abdomen, having many symptoms of colic. From the previous history of the case we diagnosticated appendicitis, and he was operated upon a few hours afterward at the Infirmary. The appendix was removed and was found to be greatly distended, and popped upon being severed. I believe that this appendix would have ruptured from the great distension in less than six hours.

In regard to what Dr. Wathen says about the diagnosis being obscure. This is simply a greater demand for the expert physician. As before stated, I believe that, where there is severe pain, with or without rise in temperature, and tumor, these cases shall be operated upon and, if the appendix is found diseased, remove it whether diagnosis of appendicitis has been made or not.

Dr. W. H. Wathen: I did not say that the presence of fecal matter in the pus was an indication of intra-peritoneal abscess. I reported a case of extra-peritoneal abscess where there was a fecal concretion in the pus. I said that fecal concretions or fecal matter in an extra-peritoneal abscess was an evidence that it was appendicular in origin.

Dr. A. M. Vance: I am thoroughly convinced that one of the most important things in a case of appendicitis is to know when the doctor should step out and the surgeon come in. My experience has been that doctors, instead of calling in a surgeon at the beginning of an attack, depend largely upon the judgment of the patient as to when he should be called. This is a point that I think we should emphasize with the general practitioner—that the surgeon should be called to see the case early—since it is a necessity for the safety of the patient. I agree fully with what Dr. Cartledge has said and think he has covered the ground very thoroughly. I believe that the safest plan would be to operate on all of these cases. An argument in favor of operation is that most cases of appendicitis recur. I have a case under observation now which ought to be operated upon; the man has a well defined tumor as big as a duck's egg; he has had fever and severe pain; has been under opium, but his bowels have moved. I am sure that if this patient recovers from this attack he will have another. When I first saw him I advised operation which was declined, and I have not seen him since. I saw a patient the other day with Dr. Tuley, very much like the case reported by Dr. McMurtry which he saw at Georgetown. The history of the case was such that it made the diagnosis more difficult. Patient was a boy nineteen years of age; a carriage trimmer; he was in the habit of carrying tacks in his mouth, occasionally swallowing one. Dr. Tuley saw him twenty-four hours after the first appearance of pain, which was referable to the right iliac fossa, and advised operation. I was called in consultation, found pain in the left side and the boy was considerably better. I thought possibly the trouble might be fecal impaction and advised a high enema. This was done, the bowels moved, fever passed off and he went on for five days seemingly convalescent. Then suddenly he went into collapse, evidently from perforation of the appendix or some other part of the gut, and died very quickly. I am sorry that I did not

do an exploratory operation in this case, but I did not feel that the severity of the symptoms warranted it. It afterward developed that this patient had swallowed tacks a few days before he was taken ill. No post mortem was held, so it will never be proven whether or not the tacks had anything to do with the trouble.

Dr. C. W. Kelly: I have seen a great many cases of appendicitis and have never had a death result.

Dr. L. S. McMurtry: Many cases of appendicitis ending in death are diagnosed as idiopathic peritonitis, and so reported. The mortality from recurrent attacks of appendicitis is very severe.

Dr. C. W. Kelly: I do not want to be understood to even indicate that I do not favor operation for appendicitis, because I do favor it. I only claim that while a man's experience as far as it goes may be good, yet it must not be convincing. You may have five cases of appendicitis, and four of them would require operation; again you might have ten cases and not one of them require operative interference. The operation can be performed almost without danger, and I believe in giving the patient the benefit of the doubt. I believe that many people might be saved by an early operation in cases where appendicitis was not made out.

THE CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting, January 10th, 1893.

The Vice President, Dr. J. M. Krim, in the chair.

Dr. J. M. Mathews reported a case of "Stricture of the Rectum." (See page 290.)

DISCUSSION.

Dr. J. G. Cecil: It is an exceedingly interesting case, and I can hardly let it go by without asking at least a question. I would like to know of the narrator what was the probable age of the cancer in the uterus at the time it was discovered, and how would that length of time, that probable age of it, compare with the first examination or first evidence of stricture of the gut? To my mind I do not see any special reason why this woman could not have had a syphilitic stricture of the rectum, and at the same time cancer of the womb; so that Dr. Mathews might have been entirely correct in his original diagnosis and equally correct in the conclusion which he came to, that there is nothing perhaps in a surgical way that gives any hope. The slight experience I have had with syphilitic stricture of the rectum bears out what Dr. Mathews has said as far as gradual dilatation of the gut is concerned where syphilitic deposits occur, that it does not amount to anything, at least I have never succeeded in even relieving the patient to any great extent. It is a constant source of trouble both to the physician and the patient; dilatation, in the very crude way in which I have been able to perform it with the ordinary instruments, has been very unsatisfactory, so that if rapid dilatation can be done as Dr. Mathews says, without danger, it seems to me that it would be infinitely preferable, as by rapid dilatation under anæsthesia we can accomplish at one sitting results which would require, perhaps, six months or a year to obtain by gradual dilatation.

In regard to syphilitic stricture of the rectum—I am not very familiar with the literature of the subject, but it seems to me that some of them situated low might be resected, especially in the female, as you would have the vagina through which to work if necessary, or at least to help in getting at the case. I would like to ask Dr. Mathews if this would not be the proper procedure.

Dr. L. S. McMurtry: I am convinced that Dr. Mathews' views upon the case reported are correct. I believe the stricture is syphilitic, and that the development of carcinoma of the uterus was subsequent as to the deposit about the rectum. Cancer of the uterus varies as to the degree of malignancy and rapidity of progress. In the case under consideration the process of cell proliferation and infiltration has been rapid in its progress. I am

sure that in this case the syphilitic ulceration antedates the cancerous development in the cervix uteri.

Dr. J. M. Mathews: While Dr. McMurtry was speaking I was reminded of the fact that upon several occasions lately this patient said to me, "Doctor, I am losing a great deal of blood," describing it as "gushing from her." For the first time or two I, of course, regarded it as dependent upon the rectal trouble, and thought it strange that she should lose this amount of blood from a syphilitic deposit, but when she came to explain that the hemorrhage was from the uterus, I was led to make an examination of it. Now you will notice here is just as extensive or, perhaps, more extensive infiltration or pathological change in the rectum without the least loss of blood, the hemorrhage being only from the cervix uteri. This is the main point I make in drawing the distinction between syphilitic deposit and malignant deposit. Here she has had for several years a syphilitic deposit in the rectum with no discharge of blood, and within a little time after the development of the trouble in the uterus, she loses a great deal of blood, which is a point I think in making my diagnosis stand.

In regard to Dr. Cecil's remarks: When this patient first came under my observation I examined her uterus as best I could with my finger and there was no evidence of any trouble, nor did she complain of any until she was losing blood, and only called attention to that within the last few months. Therefore the rectal trouble must have antedated the cancerous condition of the uterus a number of months, if not several years, from the fact that when I first made an examination of the rectum, the constriction was so small that I could not pass my little finger through it. The treatment of strictures of the gut by excision has been in vogue for a number of years, and it is more popular now than it has ever been, because some American authorities especially, are in the habit of resecting or exsecting strictures of the gut where they are within reach, and where healthy mucous membrane can be secured above and pulled down and stitched to the true skin. Of course this can only be done in exceptional cases where the stricture occurs sufficiently low to enable you to get at it. If it is five or six inches up the gut, it is impossible to reach it to resect. Another thing that should be taken into consideration in this connection, and that is in resecting we interfere with the sphincter muscle, which is not done in dilatation for stricture. I believe dilatation preferable because we not infrequently see incontinence of feces following resection for stricture.

The following from the *Hospital Gazette* is *good*. Having an important engagement two or three weeks ago, I was unable to attend the general meeting of one of the medical societies, and asked a friend to send me a few notes of the meeting. The following came to hand:

ROYAL PIMPLE-CURING SOCIETY.

Dr. Makem-Pay, President, in the Chair.

Dr. Cutemout related the case of a patient who had for some years past suffered from a very painful and interesting complaint. Not having the notes of the case before him he was compelled to speak from memory, and, unfortunately, the symptoms had long since been forgotten. The etiology of the disease was very obscure and he proposed to deal with this more fully on a subsequent occasion. As to treatment, he had found it necessary to employ a great number of remedies, and when last seen the patient reported himself as improving—he was unable to say under which particular treatment. He had since lost sight of the patient and could not, therefore, say whether the improvement had been maintained. *Dr. Swindem* expressed the great interest he took in the case so clearly brought up before the Society, and asked for further details, particularly as to whether the bowels were regular. *Dr. MacAdamized* said he had met with a similar case in his private practice, in the person of a wealthy American gentleman who, after having been treated by all the leading specialists of Europe and America, recovered in the course of three days in his private hospital at 24 Pignomy Street, W. *M. Herringfry* proposed a vote of thanks to the author of this interesting paper.

(Left under discussion.)

Macaroni makes not a bad catheter when there is nothing else at hand and Nature is urgent. Dr. R. C. Kirkpatrick, of Montreal, tried it one day with success.

CORRESPONDENCE.

NEW YORK LETTER.*

Last Saturday night a dinner was given at one of the most fashionable hotels of the city in honor of Dr. Jenkins. More than four hundred guests assembled to pay their respects to the man who kept cholera out of New York. Prominent medical men were noticeably absent, while the leading warriors of the Tammany tribe had things their own way in eulogizing their popular medicine-man. Dr. Jenkins, who by this time is the well-established brother-in-law of Dick Croker, made a speech which showed that he was not only very well pleased with the existing condition of quarantine affairs in general, but that he was satisfied with himself in particular. Senator Hill, Francis K. Thurber, Mayor Gilroy, and several other noted men praised the worthy doctor, comparing him to Horatius and to other celebrities of historic and mythologic fame. These men, whose ideas of sanitation are in an inverse proportion to their propensities for political scheming, fail to make a very brilliant showing when compared to Drs. Janeway, Loomis, Jacobi and the other members of the committee which recently made a report to the Academy of Medicine, that was in no way flattering to the quarantine facilities of this port or of our quarantine officers. While these political leaders may be popular to-day, they will one day lay forgotten in their little urns, when the names of the physicians mentioned above will be shining light, in the firmament of the great men who have been.

★★★

New York City is the possessor of the finest operating theatre in the world. The building was completed about two months ago at an expense of a quarter of a million dollars which was bequeathed by Dr. Syms. It was planned under the direction of Prof. Chas. McBurney, who spent several months during the last Summer visiting the various hospitals of Europe, and studying their operating theatres. The building is in connection with Roosevelt Hospital. Externally it is of pressed brick and a small and unimposing looking building, and one would wonder how so large a sum could have been expended in its construction. But once inside, the observer wonders how such a sum could have furnished it so elegantly. The interior is of pure marble and consists of the amphitheatre, a room for anæsthetizing and a couple of small rooms for instruments and surgical dressings. There are three hundred seats so arranged that from any one of them the spectator can gain a perfect view of the pit.

Dr. McBurney holds a clinic in the Syms' Operating Theatre every Saturday afternoon; at the clinic the operator, the assistants, and the male and female nurses are dressed in a complete suit of white. With the popular Professor's fluent language and the beauty and richness of the surroundings, the clinic assumes more of the nature of an entertainment than of a place for surgical study.

★★★

Dr. Dudley, lecturer on gynecology at the Post Graduate, performed a Cæsarean section last week. The woman had a contracted pelvis which measured but two and a half inches in the congugate diameter. The child was within four days of full term. The patient had been pregnant once before, at which time craniotomy was performed; it was considered that as she knew her incapacity to bear a living child, and had a second time subjected herself to the dangers of pregnancy, that it was justifiable to give the child a chance, the previous one having been sacrificed for the mother. This Cæsarean section was chosen instead of craniotomy, although the higher mortality of the former was recognized. A seven pound child was delivered. At the present writing both mother and child are doing well. At no time since the operation has the mother's temperature been above 101° F.

★★★

A couple of months ago peroxide of hydrogen had quite a boom in the treatment of gonorrhœa. Several reports were made by various physicians of its

*Special Correspondent to The Medical and Surgical Reporter.

almost miraculous effects, particularly in virgin cases. It was used as an injection three times a day, undiluted ten volumes strength. It was claimed that the powerful antiseptic properties of the drug rendered it superior to the older remedies and that it possessed the virtue of being unirritating. The drug has received an extended trial in the out-door department of Bellevue Hospital and has been found wanting. It has no advantage over the older remedies, and in most of the cases seemed to have no beneficial effect in cutting short the progress of the disease. Certainly it does not abort it, as has been claimed, no matter how early in the disease it may be used. It seems that it requires a long time for some of the profession to become aware that gonorrhœa is not built on the abort plan.

ACNE.

Dr. A. F. Koontz in writing on this subject states that this name is derived from the Greek word *akun*, meaning *vigor*, affecting those in the vigor of life, during the active sexual life of both sexes.

It is an inflammatory affection of the sebaceous glands, selecting by preference those connected with the rudimentary hairs, and is usually located on the face, neck, back and occasionally the breast.

Acne is undoubtedly a reflex affection, dependent on the derangement and irritation of some of the internal organs, notably the sexual and digestive.

The lesions found are papules, pustules, tubercles and indurated nodules, and the disease is usually described under the names of Acne Vulgaris and Acute Indurata.

The Acne Vulgaris is most common in early life, and is a more acute form of the affection, the lesions being more discreet and running a more acute course, and is nearly always accompanied by a plentiful sprinkling of comedones.

The Acne Indurata is merely a chronic form of the preceding; the pustules, instead of maturing, being indolent, and assuming an indurated, nodular character.

In the treatment we must remember its reflex origin, and combine our internal and local remedies, being ever mindful of its chronic tendency and recurrence, until, in the majority of cases, it disappears with the full and *normal* establishment of the sexual functions.

To patients disfigured by Acne, though we cannot promise the traditional "Recamier" complexion, yet by a persistent and rational course we can give them a presentable skin, until time comes to their aid, and, more important than this, prevent the pitting and permanent loss of tissue which characterizes the chronic indurated form.

The only affections with which Acne is liable to be confounded are papular and pustular syphilides, and a papular Eczema; from the former it is differentiated by the history, and the more general diffusion; and in the papular Eczema the papules do not necessarily correspond to the sebaceous glands, and there is more infiltration of the intervening tissue.

The local treatment seeks to establish more acute inflammation and bring about a rapid maturation of the lesions.

This is usually done by some stimulating application, tinct. of green soap being most commonly used, washing the parts in very hot water.

All nodules and pustules should be freely punctured and the bleeding encouraged by the hot applications.

After the irritation has been kept up for a few days by the green soap, a mild stimulating lotion should be used, and sulphur washes particularly have given good results. The following is used by Dr. G. T. Elliott, of New York City.

℞ Zinci sulph.
Potass. sulphuret. } .....aa gr. v—xxx.
Aquæ rosæ..... ..... ʒi.
Sulphuris præcip..... gr. xx—xl
Sig: Apply to face three times a day.

This treatment should be persisted in until the face is cleared, and should be resumed immediately if the eruption shows any tendency to return.

With reference to the internal treatment, the sexual functions should be regulated, and any excitement of an unnatural kind—masturbation—should be strictly inquired into, as this is frequently the provoking cause in both sexes. The bowels should be regulated and the diet restricted to wholesome food, sugar being limited.

The indications being, according to Piffard, of New York, for arsenic, when there is an indolent papular element, and for the sulphide of calcium in those cases characterized by a plentiful crop of sensitive pustules.—*Hot Springs Med. Jour.*

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SATURDAY, FEBRUARY 25TH, 1893.

EDITORIAL.

A MODERN DON QUIXOTE CHARGING A WINDMILL.

"Fortune disposes our affairs better than we ourselves could have desired: look yonder, friend . . , where you may discover somewhat more than thirty monstrous giants, with whom I intend to fight, and take away all their lives; . . . for it is lawful war, and doing God good service, to take away so wicked a generation from off the face of the earth." "Consider, sir," answered Sancho, "that those which appear yonder are not giants, but windmills." "One may easily see," answered Don Quixote, "that you are not versed in the business of adventures; they *are* giants, and if you are afraid, get aside and pray, whilst I engage with them in a fierce and unequal combat."—*Cervantes.*

The *Journal of the American Medical Association* for February 4, 1893, contains an editorial on REMOVAL OF THE OVARIES AS A THERAPEUTIC MEASURE IN PUBLIC INSTITUTIONS FOR THE INSANE, which, as an example of correct reasoning from false premises, is to be admired though not imitated. We quote, (*italics are ours*):

1. "The State Board of Public Charities of Pennsylvania has recently been induced to take action upon the *sexual mutilation* of insane women, which has lately been introduced and practiced in one of the State institutions for the insane."

2. "The attention of the Board was directly called to this subject by its Committee on Lunacy which made a special report upon the subject of *Removal of the Ovaries as a Cure for Insanity.*"

3. It is intimated, by a quotation from the report of the Committee's secretary, that Dr. Joseph Price had already performed operations of this kind on four insane patients in the Norristown Hospital, and that fifty more had been marked down for operation by this method in the same institution.

4. The Editorial quotes the Committee as saying:

"As a general rule, to which there must be an occasional exception, we are forced to regard *experimental* operations upon insane women, for the purpose of restoring their reason, with disfavor, and to consider it unwarrantable and indefensible. As to the practice of such operations in our State hospitals, it is a matter of grave doubt whether a relative or guardian of an insane woman has the moral or legal right to give *consent* to the *unsexing* of the insane person. What redress would such a person have, if in *re-*

covering her reason she objected to her mutilated condition?"

5. "It is the opinion of Mr. Thomas Barlow, the legal member of the Committee, that in view of the *experimental* character of the work, it is brutal and inhuman and not excusable on any reasonable ground."

6. Dr. Morton is quoted as saying "that insanity is not a disease of the ovaries, nor of any other part of the body which is accessible to the surgeon's knife" and Mr. Barlow says "that legal consent of the patient for such mutilation can not be obtained."

THE REPORTER suggests for consideration:

1. It was not proposed to *mutilate* these women either sexually or otherwise. Each of them had been carefully observed and repeatedly examined by a learned and thoroughly qualified member of the profession of their own sex, and found with marked disease of the pelvic organs—disease such as ordinarily unsexes the patient long before the surgeon's interference.

2. It was not proposed by the physician-in-charge that the ovaries should be removed *as a cure for insanity*. They were to be removed for the *cure of pelvic disease* having its origin in the tubes and ovaries. By this means it was *hoped* to relieve suffering and bring about a state of physical health, thus putting the patient in a condition to be better treated for her mental disease.

3. Had Dr. Price been simply removing ovaries for the *cure of insanity*, why would only fifty have been marked down for the operation? Why not an hundred? or two hundred? The fact is only fifty were found with disease grave enough to justify a section, and *no operation* was intended for its effect upon the mind alone.

4. Does any one for a moment suppose that the operation of abdominal section for the positive relief of gross pelvic lesions is anything in the nature of an *experiment?* And if a guardian may not give consent for an operation of this kind, can he authorize the operation of trephining, or even the pulling of an aching tooth, or the removal of a diseased eye which is threatening total blindness by setting up a sympathetic inflammation in the sound eye? "What redress would such a person have if, in recovering her reason, she objected to her mutilated condition?"

5. Of course the opinion of Mr. Barlow, first, that the work is *experimental*, second, that is is "brutal and inhuman" ought to settle the question at once. A lawyer's opinion on medical and surgical questions is on a par with that of a doctor on legal matters. "Let the shoemaker stick to his last."

6. No one supposes for a moment that insanity is a disease of the ovaries and Dr. Morton said nothing new or startling when he gave utterance to the proposition quoted. Yet we do not suppose for a moment that he would deny the fact that insanity may follow and depend upon disease of the ovaries as well as other parts of the body.

The mistake made in the editorial referred to, and by all others who discuss this question from a like standpoint, is that they are fighting a figment of their own imagination. They first create a monster and then proceed most valiantly to destroy the object of their own creation.

They lift their hands in horror at "*mutilation,*" "*unsexing,*" "*experimental sections,*" "*removal of ovaries*" to *cure insanity,* while no one proposes to mutilate, unsex, experiment, or cure insanity *per se* by the removal of ovaries.

An insane person should be treated gynecologically just as any other person would be treated. An examination, diagnosis and treatment ought to be instituted independent of her mental condition.

Would Morton stop to consider the

question of insanity if a patient's leg was broken or she had a gangrenous foot?

Would Pepper refuse quinine in a case of malaria because of existing insanity? Would Parvin deny the forceps to an insane woman in a case of dystocia with an impacted head? If not, why should Price withhold the knife in a case of pus in the pelvis, or an ovarian tumor? Would not an abdominal surgeon operate for occlusion of the bowel ?

Such objectors are gems of consistency. They may trephine the skull, reduce dislocations, adjust fractures, give purgatives, diuretics or other depurative medicines, but the gynecologist must stay his hand even though pus absorbtion has gone on till the very brain-cells are saturated with toxic products, the effects of which are to destroy all normal function and give a disordered mind the result of a diseased body.

In conclusion we wish to remark that the removal of ovaries is not the only object, nor the universal result of an abdominal section.

TRANSLATIONS.

EXPERIMENTAL TYPHOID FEVER.†

According to Aviragnet (*Le Bull. Méd.*, Jan. 15, 1893), experimental typhoid fever is difficult to produce, because animals are naturally refractory to the typhoid bacillus. Consequently, in inoculating animals with the bacillus of Eberth, the object should be not to reproduce a faithful image of typhoid fever in man, but to determine a septicemia analogous to that produced in the same conditions by the coli-bacillus or by the microbe of cholera. This is not easy to do judging from the irregularity of the results obtained. The first experimenters who endeavored to produce an experimental typhoid fever by causing the animal to absorb the typhoid stools, most frequently obtained negative results. The researches which followed the discovery of the typhoid fever bacillus have given rise to results quite contradictory. Whilst Gaffky was unable to obtain anything, E. Frankel and Simmond, A. Frankel, Michael, Fodov, Seitz demonstrated the specific action of Eberth's bacillus. The results of their researches seemed to decide the question. Nevertheless, some time afterwards, Sirotisun, on one hand, Beumer and Peiper on the other hand, arrived at couclusions totally opposite; according to these authors the injection of cultures of Eberth's bacillus do not determine an infection, but a simple intoxication. Moreover, Beumer and Peiper thought that identical results should be obtained with inoffensive microbes, such as the *bacillus subtilis* and the bacillus prodigiosus, on the condition that large quantities be injected.

Chantemesse and Widal took up the question in 1887, and demonstrated that the typhoid bacillus, endowed with a certain virulence, determined in the animals a true infection. Cygnœus, Gasser, Gilbert and Girode confirmed these results. Two interesting works have been published in the *Annals of the Pasteur Institute* upon the action of Eberth's bacillus upon animals; one is by Chantemesse and Widal; the other by Sanarelli. The results obtained by these experimenters agree in every point; they are most interesting and deserve to be largely analyzed. They have caused a decided advance in the question of experimental typhoid fever.

The contradictions which the previous works offer reside in the fact that the researches have been undertaken most often without the virulence of the injected bacilli being determined. Chantemesse and Widal had already remarked, in their memoir of 1887, that the results could not be positive unless bacilli endowed with a certain virulence be employed. In their new work they follow up their idea and

†Translated for THE MEDICAL AND SURGICAL REPORTER, by W. A. N. Dorland, M. D.

increase and fix the virulence of Eberth's bacillus. Sanarelli has been guided by the same idea. This virulence once acquired, it has been easy to demonstrate that an injection of a pure culture of Eberth's bacillus was constantly fatal to the animals.

This is the method first employed by Chantemesse and Widal to increase the virulence of a slightly acting typhoid bacillus. A guinea pig is inoculated under the skin with a dose of four to six c.cm., of a typhoid culture, freshly taken from the human body; the animal habitually succumbs in twenty-four or forty-eight hours. The peritoneal cavity encloses an abundant serous exudate rich in typhoid bacilli. Two or three c. cm. of this fluid is taken, mixed with 10 c. cm. of bouillon and the whole left in an oven at 37° C., for some hours. At the end of this time a guinea pig is inoculated with four to five cc. of this culture (under the skin.) In this second animal the infection is already more rapid; this process is repeated from one guinea pig to another. The more the number of the passages is increased, the more may the inoculating dose be diminished. Two cm., then one, and finally $\frac{3}{4}$ of a cm., suffice to kill the animal in a few hours with proliferation of the bacilli in all the organs, and in particular in the blood, spleen, etc. The virus which suffices to kill the guinea pig by subcutaneous injection of $\frac{3}{4}$ cm., will also kill it in the dose of eight or ten drops when it is inoculated in the peritoneal cavity. Two cubic centimeters of the same culture injected into the peritoneum of a rabbit, or four cc. inoculated in its blood most frequently cause the death of the animal in twenty-four or thirty hours, with generalization of the bacilli in all the organs and in particular in the blood. But it is necessary to say that the virulence of a typhoid bacillus, even thus exalted, is inconstant for the rabbit.

Chantemesse and Widal have succeeded in killing guinea pigs with non-virulent or slightly virulent cultures, by injecting at the same time in the subcutaneous cellular tissue, or in the peritoneum of the these animals some cubic centimeters of a culture of streptococus sterilized for an hour by heating to 60° C. The animals succumb with generalization of the typhoid bacillus in the blood, the organs and the peritoneal cavity. On inoculating a second guinea pig with the culture provided by the first, the animal rapidly succumbed, although but a slight quantity of the sterilized culture of the streptococcus had been injected. On continuing the series of cultures the bacillus acquires a progressive virulence and determines sooner infection when the guinea pig has been prepared by the injection of the soluble substances of the streptococcus.

In these successive cultures the bacillus of Eberth always preserves the characteristics which are proper to it. Streptococci do not alone favor typhoid infection. Sanarelli has arrived at the same results with the *bacillus coli commune*. This is his method of proceeding: he inoculates five cc. of a typhoid culture of twenty four hours in bouillon, in the dorsal subcutaneous tissue of a guinea pig in the abdominal cavity of which, at the same time, are injected ten to twelve cc. of an old culture in sterilized bouillon of *B. coli*. The animal succumbed in the space of twelve to fourteen hours, and generally in the peritoneal exudate is found an abundant quantity of the bacillus of Eberth. A subcutaneous injection of five cc. of the culture taken from this first guinea pig, kills a second guinea pig when it has received, at the same time, not more than twelve, but usually seven to eight cc. of a sterilized culture of *B. coli*. Analogous results may be obtained with sterilized cultures of *proteus vulgaris*. The virulence of the typhoid bacillus may be more quickly intensified by the passage from peritoneum to peritoneum.

The action of soluble products afford an explanation why causes which enfeeble the individual (auto-intoxication or poisoning of external origin) may facilitate the invasion of the typhoid virus. The absorption of impure water which, in so marked a manner, determines the outbreak of typhoid fever, owes in great measure its infecting power to the cause noted above. The coli-bacillus plays, without doubt, a rôle in the etiology of typhoid fever, not only on the quality of the specific microbe, but as a more or less useful auxiliary, although inferior in its power to the streptococci and to other saprophytes of the intestinal tube.

The infection produced in the guinea pig by these virulent cultures is nearly always identical. The mean duration of

the infection is from fifteen to eighteen hours. At the end of two to six hours the temperature rises to 40° or 41° C. From the sixth to the twelfth hour the temperature falls to the normal, then below to 37°, 36°, 34° and even 32° at the moment of death. This is the usual thermic cycle; it is subject to numerous variations. At first the general aspect of the guinea pig is not altered; later changes appear and, in spite of the rapid evolution of the infection, the animal is considerably emaciated. The peritoneal cavity contains two to ten cc. of a thick serous exudate, very fibrinous, containing an enormous quantity of typhoid bacilli. The spleen is doubled in volume and strongly congested. The liver is fatty and of a deep red color; it is often covered with their fibrous exudate. The intestine is quite congested, filled with a fluid rich in typhoid bacilli. Peyer's patches and the mesenteric ganglia are tumefied. The kidneys are increased in volume and congested. A slight effusion in the pleural cavities may be present, and the lungs ordinarily present a very marked hyperemia of their posterior lobes. The typhoid bacillus is in a state of pure culture in the organs, the peritoneal exudate, in the blood and often in the fecal matter. Such is the picture given by Chantemesse and Widal of typhoid infection in animals. Efforts have been made by these experimenters to prevent further infection in typhoid fever patients by inoculating them with serum of animals vaccinated in the above manner. Thus far their efforts have not been successful, but it is to be hoped that if the injection be made immediately on the appearance of the first symptoms, positive results may be obtained. It has undoubtedly been noticed that the serum of animals vaccinated against typhoid infection is endowed with manifest therapeutic properties.

URGENT OPERATIONS IN OBSTETRICS.†

Dr. Bengnies, of Givet, divides surgical accouchments at term into two types—*Moderate Contraction*—from 95 to 65 millimeters; *Extreme Contraction*—below 65, that is to say, three and a half to four finger breadths. Every physician should know the breadth of his fingers, separate or together, and their length.

1. MODERATE CONTRACTION.

The fetus is dead or living, and the forceps fail. *Dead;* Cephalotripsy, craniotomy, embryotomy. *Living;* symphysiotomy.

TECHNIQUE OF SYMPHYSOTIOMY.

1. Ordinary preliminary measures, shaving, antiseptic washes.
2. Place the patient with flexed thighs, in the position of abduction.
3. Incise vertically, for a length of five centimeters, the juxta-symphyseal skin, without descending to the clitoris.
4. Separate the muscular columns on the grooved director, dividing the fascia.
5. Push back the bladder with the finger covered with muslin, and protect it.
6. Divide the inter-articular space alternately with a strong, straight bistoury and a guarded bistoury.
7. Stretch the sub-pubic ligament and divide with care, on account of the subjacent urethra.
8. Extremely abduct the thighs and separate the two bones so that the finger can move freely in the interval.
9. After extraction of the fetus with the forceps, suture the pubic with burnt silver, or silk thread, traversing the fibrous attachments on its anterior face.
10. Suture and drainage of the wound; cotton; spica bandage.

A month of horizontal rest reunites the symphysis and causes the separation of the anterior sacro-iliac ligaments to disappear. With rigorous antisepsis the operation is less grave than the Cesarean. In twenty-four cases of Spinelli, there were twenty-four recoveries for the mothers, and twenty-two for the infants.

2. EXTREME CONTRACTION.—CESAREAN OPERATION.

TECHNIQUE OF CÆSARIAN HYSTEROTOMY.

The *ensemble* of the details of the technique of Cesarean Hysterotomy com-

†Translated for THE MEDICAL AND SURGICAL REPORTER, by W. A. N. Dorland, M. D.

prises the *local*, *personnel*, *material*, *operation*.

A. *Local*:—Temperature at 25° C., the chilling of the peritoneum being a cause of death.

B. *Personnel*:—An assistant for the pulse (midwife); one for the chloroform, furnished with a tongue forceps; one for handling the instruments; a person to boil the solutions and towels; a physician to hold up the abdominal viscera; a supplementary aid. All should make the *hands and forearms* rigorously antiseptic by thorough washing with soap, brushing of the nails and rinsing in Van Swieten's liquid. A towel soaked in the same solution covers the breasts of the two operators.

C. *Material*:—1. Woolen blankets for the limbs of the patient.

2. A long table, covered with a latticed shutter to permit of the escape of the fluids, upon which the patient is placed asleep, the table and shutter having undergone a thorough cleansing with boiling water.

3. 150 grammes of chloroform dropped upon a compress from a dropper.

4. Silk ligature, preserved in Eucalyptol alcohol, or sublimate, 50 meters.

5. Burnt silver wire.

6. Five or six liters of salt water, 5 to 1,000, and boiled for a quarter of an hour.

7. One liter of carbolized water (50 per cent.) for the instruments.

8. Aseptic muslin formed into sponges.

9. Six soft towels well baked in the oven.

10. A pack of salicylated cotton.

11. Ten grammes of salol.

12. Idoformized and salolized gauze.

13. Antiseptic peat.

14. Large flannel body bandages.

15. Instruments: straight bistoury, guarded bistoury, grooved directors, two Volsella forceps, twenty hemostatic forceps, straight scissors, razor, various needles, rubber tube (1 meter by .005 millimeters in diameter), eight celluloid tubes. All rigorously disinfected. Irrigation apparatus. Pravaz syringe.

D. *Operation*:—This should be anticipated, and every manœuvre abstained from, even the simple vaginal touch. Operate at the beginning of labor.[1]

(1) After twelve hours of labor the cures reach forty-four per cent.; after forty-eight hours they drop to seven per cent.

1. Empty the bladder and rectum; shave the pubes and abdomen; wash carefully the field of operation; irrigate, antiseptically, the vagina.

2. Make an incision in the linea alba to the left of the umbilicus sixteen centimeters long, stopping about two finger-breadths from the pubis.

3. Pass three large sutures at the superior angle of the incision grasping the ends with hemostatic forceps. They serve to contract immediately the abdominal wound after the extraction of the fetus.

4. Bring the uterus to the center of the wound.

5. Compress the flanks in such a manner that the uterus projects strongly across the abdominal opening.

6. Make in the anterior uterine wall, well towards the middle, a vertical incision, *which is completed rapidly with the fingers, without arresting the enormous hemorrhage which boils up*. Seize the fetus by the feet through the placenta and extract it in a twinkling. If the fetus is macerated, bend the uterus without the body before opening it, and surround it with hot pads.

7. During the fetal extraction the assistants combine their movements to apply *en masse* the entire uterus against the fetus, a measure which will disengage it, prevent the escape of the intestines, and the soiling of the peritoneum.

8. Extraction of the placenta and its membranes.

9. Sponging, hemostasis.

10. Displacement of the uterus without the belly and tying of the upper sutures.

11. Compression of the neck of the uterus with the hands, the tube or a band of aseptic muslin.

12. Cleansing, irrigation, and drying of the uterine cavity.

Here the operator will consider the indications for hysterectomy, reinstallment *in situ* or castration.

A.—CASTRATION.

Indications for:—The appendages are diseased; then remove them entirely; the deformity is so considerable that it demands the stoppage of the genital function. In the latter case, ligate each tube with two threads in such a manner as to leave an occluded space in their course,

and drop them. *Total extirpation of the appendages:* Multiple ligatures of double size throughout the height of the broad ligaments, which are divided in the intervals.

B.—RESTORATION.

If the organ does not present any abnormality, nor show any trace of grave traumatism, of inertia, of profuse hemorrhage, it may be preserved and treated as follows:

1. Powder the internal surface with salol.
2. Fill it with muslin.
3. Straighten with scissors the lips of the parietal wound, if they are torn.
4. Make three tiers of buried silk sutures, mucous, muscular and musculoserous; distant a centimeter the one from the other.
5. Withdraw the muslin before closing the orifice.
6. Cleanse the wound, the circumference of the uterus, irrigate even, if necessary, the peritoneum with boiled salt water.
7. Be satisfied that hemorrhage is well staunched, and powder with salol.
8. Close the abdomen by two planes of sutures, one deep the other superficial, rendering the last firmer by the aid of a second line of large sutures, which grasped by the celluloid pegs, pleat the skin a little.
9. Upon the external wound salol, sublimated cotton, peat and flannel bandage.

C.—PORRO'S OPERATION, MODIFIED BY FRANCK, OF COLOGNE.

Indications:—Uterine inertia; putrid inflammation; uncontrollable hemorrhage.

Technique:—1. Rapid suture, by overcasting the uterine wound.

2. *Turning of the uterus through the neck, the vagina, and the vulva.*

3. Bringing down of the organ by traction.

4. Circular ligature near to the vulva.

5. Section to outer side of ligature.

6. Irrigation of the vagina and packing with salolized gauze.

This procedure is as simple and as efficacious, it appears, as the classic method is difficult, and in general, moderately good in its different results.—*Jour. de. Méd. de. Paris*, Jan. 22, 1893.

The Action of Chloroform upon the Human Being.*

Careful anatomical and pathological studies on this subject by Dr. E. Fraenkel, of Hamburg, led to the following contribution. He recognizes in long continued chloroform narcosis a dangerous poison upon the human tissues. He has been able to observe four cases, three male and one female. Two of these having died forty hours after having been respectively three to four hours under the influence of chloroform.

The third died eighteen days after having been under chloroform three hours, while the fourth died five days after the operation—the operation having consumed two and a half hours.

The author's studies in connection with the pathological changes correspond in the main with those examinations made by others on patients who have died from prolonged chloroform narcosis, in that the kidneys and liver have suffered from necrotic changes of a specific character in their parenchymal cells. Comparatively speaking, the heart seemed to suffer the least, even though this organ has never been found thoroughly intact. Up to the present date there is still a lack of pregnant symptoms which will permit of a decided opinion from a clinical standpoint on the subsequent action of chloroform; although there is after a prolonged period of chloroform narcosis an excretion of a sulphurous substance similar to cystin in the urine. Chemical and anatomical investigations have decided that the protracted use of chloroform will induce rapid retrograde changes in the organism.

The substances which are most frequently attacked are not yet clearly demonstrated; it is still an open question if its deleterious effects first attack the tissue cells of the organs in question, or if aside from this the changes in the blood lead to a destruction of the red blood corpuscles.

In closing, the author states that his studies, on both animal and man regarding this subject, have led him to think that there is a difference in the individual susceptibility which would explain the apparent freedom from its deleterious effects in some weak individuals.—*Virchow's Arch.* cxxix. 2 p. 254, 1892.

* Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

ABSTRACTS.

SATURNINE ENCEPHALOPATHY.

The fact that lead is capable of producing ill effects on the brain has been recognized from early times. Dr. Joseph O'Carroll in an article on this subject, states that it was reserved for Tanquerel des Planches, who studied lead-poisoning in the Paris hospitals between 1831 and 1839, to complete the clinical description of the various conditions which brain-poisoning by lead represents, and to unite them under the name *encephalopathie saturnine.* "The cerebral phenomena of lead-poisoning," says Tanquerel, "are delirium, coma, convulsions, accompanied perhaps by more or less sensory defect. . . . . It is a non-febrile neurosis of the encephalon of so variable physiognomy that between morning and evening, between to-day and to-morrow, the symptoms which declare its existence may change completely in aspect or in form." This rapidity of change in its symptoms is one of its principal characters. The onset of encephalopathy may be sudden, or it may be heralded for a longer or shorter time by prodromata, some of which may distinctly suggest lead-poisoning, but are so commonly unattended by head symptoms as to give us no indication of the onset of encephalopathy, while others may suggest brain disturbance without giving any hint of the cause. To the former class belong the various common phenomena of lead-poisoning, "dropped wrist," colic, arthralgia, the slate-colored line on the gums,* and a peculiarly fœtid breath; the latter group includes headache, giddiness, tinnitus aurium, diplopia or amaurosis,† together with slight intellectual and moral changes in the direction of fidgetiness, sluggishness of ideation, moroseness, sleeplessness, or unpleasant dreams.

As the combination of two or three of these phenomena—delirium, coma and convulsions—is the most frequent form of lead encephalopathy, so its prominent characteristic is, if I may say so, its inconstancy of symptoms. A case may at one visit present delirium, at another coma; to-morrow coma may have given place to convulsions, the day after the phenomena may be reversed; and each change may occur without warning, and often with extraordinary suddenness. I gather from Tanquerel that the prognosis is hopeful in proportion to the predominance of the least grave symptom, delirium, and gloomy in proportion to the predominance of convulsions. If coma persists beyond three days death is probable.

I shall not dilate upon the treatment of lead encephalopathy; it resolves itself into symptomatic and eliminatory. The latter indication is, as far as our present knowledge goes, best fulfilled by iodide of potassium; but it by no means follows that the iodide ought to be administered during the cerebral attack. If the phenomena be due to the direct action of lead upon the nerve centres, then any drug which temporarily increases the amount of lead in solution in the body-fluids would be liable to do harm. The symptomatic treatment is in no wise peculiar; but I may point to the fact that most authors, from Tanquerel to the writer in Eulenburg's *Encyclopœdia*, speak well of opium, as a clinical argument against the view which attributes this disease to a primary uræmia. Other sedatives may also be of service; the bowels, which form one of the eliminatory channels for lead, should be kept free; leeching, blistering, and various other procedures may seem desirable in particular cases. Needless to say that the patient should be absolutely withdrawn from the influences of lead.—*The Dublin Jour. Med. Sc.*

*It is interesting to note that the blue line remarked by Burton as a sign of lead-poisoning in 1840 is very fully described by Tanquerel in 1839, and had probably been noticed even earlier.

† The affections of vision which occur in saturnine encephalopathy are to be distinguished from the affections of the optic nerve (mainly atrophic) which are frequently seen in lead-poisoning; the former are central, the latter are peripheral lesions.

"I don't want any castor-oil," said a sick Boston boy, petulantly, "and I won't take it."

"Why, Horace," expostulated the mother, "don't you know that castor oil is made from beans?"

And the little boy, whose faith in his mother is perfect, took the dose, and feebly asked for more.

SELECTED FORMULÆ.

For Threatened Abortion.

Dr. E. Wilson prescribes the following with success:

℞
Tinct. opii deod..... mlx.
Sodii bromidi. ..... ʒiij.
Choral hydrate..... ʒjss.
Syr. accaciae ..... ʒj.
Aquae, q. s. ad..... ʒiij.

M. Sig.—A dessertspoonful in water every four hours.

—*Lancet Clinic.*

Ointment for Eczema.

℞
Oxide of zinc..... gr. xv.
Powdered tale,
Vegetable tar,
Vaseline, of each..... ʒv.

Sig.—Make into an ointment, and apply to the part morning and night.

—*L' Union Medicale.*

Tonsillitis.

Whether superficial or parencymatous, when recognized early, will be arrested by

℞
Tinctura Gnaici ammoniat.....
Syrupi sarsaprill. comp .....ää ʒii

M. Sig.—One or two teaspoonfuls every three or four hours.

—*Bricker.*

Chronic Rheumatism.

℞
Liq. potassi arsenitis..... ʒ ss.
Potassi acetatis..... ʒ iij.
Vini colchi rad..... ʒ ij.
Ext. cimicifuga..... ʒ iij.
Ext. phytolacca..... ʒ iss.
Aquæ menth pip..... ʒ iij.

M. Sig.--Two teaspoofuls in water every four hours.

Med. Summary.

Neuralgic Dysmenorrhœa.

Professor Parvin makes use of:—

℞
Extract. opii,
Extract. belladonnae ..... ää gr. iss.
Quinin. sulphat..... gr. xxiv.
M. Fiant pil. xxiv.

Sig.: One pill every three hours.

—*Med. World.*

Allingham's Ointment for Hemorrhoids.

℞
Bismuth subnit..... ʒi.
Hydrarg, subchlorid..... gr. j.
Morphin..... gr. iij.
Glycerini.....
Vaselini.....ää ʒj.

M. Sig.—Use in pile-pipe.

—*Ex.*

Ointment for Chronic Gonorrhœa.

This treatment may be resorted to from twice to three times a week, the sound being carried down to the point where inflammation exists.—*Ex.*

℞
Nitrate of silver crystals..... gr. viij.
Lanolin (anhydrous)..... ʒviij.
Pure olive oil..... ʒss.

M. Sig.: Dissolve the nitrate of silver in a very small quantity of water, and incorporate it with the grease. This is then introduced into the canal by means of smearing it upon a sound.

Diphtheria.

The following new combination is recommended by Ozegowski in the *Nouring Lekarskie* for diphtheria:

℞
Iodine,
Carbolic acid,
Citric acid..... ää 3 to 5 grms.
Brandy, enough to make..... 100 grms.

This is applied on cotton compresses to the diphtheritic membranes. The author believes this remedy is infalliable, and states that he has cured every case coming under his care with it.—*Medical Bulletin.*

Burns of the Eye.

Dr. Dudley S. Reynolds, for a severe lye-burn of the eye, which had first been treated with the instillation of vinegar, used, with satisfaction, the following lotion :

℞
Borate of sodium..... ʒ iiss.
Chloride of sodium..... ʒ ss.
Distilled water..... ʒ xij.
Camphor water..... ʒ iv.

—*Therap. Gazette.*

Cholera Cure.

An exchange publishes the following from a correspondent who states that $1000 was refused for it at one time:

℞
Chloroform.
Tinct. camphor.
Spts. Camphor.
Ess. peppermint.
Spt. ammon. aromat..... .....ää ʒjss.

M. Sig.--Put a teaspoonful in a wineglass of iced water, and give a teaspoonful thus diluted every five minutes.

Cystitis in Women.

℞
Citrate of potassium..... ʒ ss.
Fl. ext. of triticum repens.
Tinct. of belladona, ea c..... ʒ i.
Fl. ext. buchu..... ʒ ss.
Water add to make four ounces.

S.—A teaspoonful in a wineglassful of water three times a day.

—*Journal de Medicine de Paris.*

Hard Tooth Soap.

℞
Precipitated chalk..... ʒ ij.
Carmine..... gr. iij.
Powdered soap..... ʒ v.
Oil peppermint..... gtt. x.
Alcohol..... mxlv.

Triturate the carmine with a few drops of ammonia water and add the precipitated chalk. Dissolve the oil of peppermint in the alcohol; add the solution to the soap contained in a mortar and thoroughly incorporate; then add the precipitated chalk and when the whole is homogenous transfer to suitable molds and dry.

Corneide; An English Corn Cure.

℞
Ext. Cannab Ind..... 1 gram.
Salicylic acid..... 10 grams.
Turpentine oil..... 5 "
Collodion..... 82 "
Acetic acid concentrated..... 2 "

—*American Druggist.*

Burns in Children.

Dr. Wertheimer, of Norwich, having washed the parts with boric acid water, covers them with several thickness of gauze impregnated with a mixture of one and a half ounces each of lime-water and linseed oil, with one and three-quarters to one-half grains of thymol. At the end of ten to fifteen days this application is replaced by the following liniment:

℞
Subnitrate of bismuth..... gr. ix
Powd boric acid..... gr. ivss
Lanolin..... gr. lxx
Olive oil..... gr. xx

Apply on muslin.

—*Ex.*

Pruritus Ani.

℞
Hydrargyri chloridi corros..... gr. ij
Acidi hydrochlorici..... gtt., x
Aquæ..... ℥ viij

M. S. Apply locally, lukewarm

—*Laplace.*

℞
Argenti nitratis..... gr. xx
Aqua..... ℥j

M. S. Paint over itching surface.

—*Bartholow.*

℞
Cocain hydrochlorat..... gr. v.
Lanolini..... ℥j.

M. S. Apply locally, after washing with warm water.

—*Besnier.*

℞
Acidi carbolici..... gr. vj.
Aquæ..... ℥j.

S. M. Apply thrice daily.

—*Heath.*

℞
Benzoini, pulv. finiss..... ℥j.
Hydrargyri ammonial..... ℥ss.
Lanolin..... ℥j.

M. S. Apply twice daily. Avoid coffee, malt liquors, sugar and excess in meat.

—*Waugh.*

Treatment of Lead Colic by Large Doses of Olive Oil.

Dr. Weil, of Lyons, France (*La Semaine medicale*, No. 66, 1892), has treated five cases of lead colic successfully with large doses of olive oil. He administers a glass of the oil per diem, and in all the cases a cure was effected in three to five days, concluding with the appearance of copious stools, produced by the oil. But, before the stools, considerable diminution of the pains takes place, thus proving that, besides its action as a purgative, it exercises a certain analgesic effect upon the intestine. In one of the patients two glasses were rejected by the stomach, while the third produced an amelioration and a cure. Another patient, in whom belladonna and purgatives brought about no results, was relieved by the first glass of the oil and cured by the fifth. In all the cases of plumbism the oil not only caused a disappearance of the colic, but also of the other symptoms—myalgias, arthralgias, cutaneous anæsthesia, headache and vertigo.

Leather Bronze.

℞
Tannin..... 5 parts.
Alcohol..... 100 parts.
Gold bronze, real..... Enough.

Apply with a sponge.

Cement.

For attaching glass letters and ornaments to glass.

℞
Caoutchouc..... 1 oz.
Mastic..... 3 ozs.
Chloroform..... 50 ozs.

Mix.

For fastening metal letters on glass.

℞
White lead..... 9 ozs.
Litharge..... 12 ozs.
Linseed oil..... 27 ozs.
Mastic..... 9 ozs.

Melt the mastic and linseed oil together and gradually rub in the larthage and white lead. Use while hot.

—*Ind. Blth.*

Patent Leather Varnish.

W. R., Brookly, N. Y.—The following will, it is said, produce a varnish which will not crack or peel off from leather:

℞
Rosin..... 30 parts.
Turpentine..... 30 parts.
Oil of turpentine..... 30 parts.
Sandarac..... 60 parts.
Shellac..... 120 parts.
Alcohol..... 900 parts.
Lampblack..... 15 parts.

Digest the first six ingredients together and finally add the lamp black.

—*American Druggist.*

A Composition for Cleaning Wall Paper.

is made by mixing together 1 pound each of rye flour and white flour into a dough, which is partially cooked and the crust removed. To this 1 ounce of common salt and ½ ounce of powdered naphthaline are added, and finally 1 ounce of corn meal and ½ ounce of burnt umber. The composition is formed into a mass, of the proper size to be grasped in the hand, and in use it should be drawn in one direction over the surface to be cleaned.—*Ex.*

Removal of Mother Marks.

The *Allgemeine Medicinal Central Zeitung* gives the following as very affacious: Mix one part of tartrate of antimony with four parts of emplastrum saponatum and work into a paste. Apply the mixture to the part to be removed to the depth of one line (one-twelfth inch), and cover with a strip of gummed paper or court plaster. On the fourth or fifth day suppuration sets in, and in a few days scarcely a sign of the mark can be seen.—*Ex.*

Dose of Santonin for Children.

Dr. Demme considers the smallest efficient and perfectly safe dose of santonin to be from one-sixth to half a grain, or from one to one and a half grains a day. As a vermifuge he associates santonin with calomel, as:

℞
Santonin..... gr. iss-iij
Calomel..... gr. iij.
Sacch. lactis..... ℥ iss.

Ft. chart. No. ix. Sig.—Take one powder at six, seven and eight o'clock in the evening for three consecutive days.—*Annals of Gyn. and Obs.*

THE LIBRARY TABLE.

Diseases of the Chest, Throat and Nasal Cavities. By E. Fletcher Ingals, A. M., M. D. Second Edition. Pp. 675. 240 illustrations. New York: William Wood & Co., 1892.

This work is an excellent book for students, and contains a large amount of useful information. No space is wasted in merely collating various theories and methods suggested by different writers, as the author has confined himself to recommending the plans of treatment which have proved most efficacious in his own practice. The book is very clearly written and is eminently practical in its character. Particular attention has been paid to the question of diagnosis, the distinguishing characteristics of compared diseases being set forth in parallel columns. Dr. Ingals is fully in accord with the English authorities who look upon diphtheria as a constitutional disease with local manifestations, whilst, as he says, "many continental authors and some American writers regard it as a primary local affection with secondary constitutional manifestations."

He differs from Makenzie and some other authors in the belief that diphtheria and croup are identical, being convinced that they are two distinct diseases, in which he agrees with Aitken, who says, "any one who has seen much of croup in children, can have no difficulty in recognizing it as a disease distinct from diphtheria in its attacks, its course and results." Under the head of "Croup" he says that in children under five years of age, intubation seems to offer better chances for recovery than tracheotomy. An excellent list of Formulæ is given in the Appendix.

Disease in Children. By James Carmichael, M. D., F. R. C. P. Ed. Illustrated with thirty-one charts. New York: D. Appleton & Company, 1892.

The author in presenting this work assumes that the reader is acquainted with general medicine and the diseases of adult life. This is the first book on Diseases of Children that has ever been presented by a Scotchman and is full of quaint and peculiar Scottish expressions. The chapter on "Clinical Examination of the Child" is fully worth the cost of the work. No attempt has been made to give a detailed and systematic account of symptoms and physical signs as in lengthy monographs and treatises. The space given to each subject has been limited or extended in proportion to its importance, The basis of the book is the author's experience in public and private practice and as a clinical teacher.

The Anatomy of the Peritoneum. By Franklin Dexter, M. D. New York: D. Appleton & Co., 1892.

This little book comes to us with something new. It is a clear and concise description of the peritoneum, made very plain by a series of thirty-eight diagrams, nearly every one having a page to itself. The plates are neatly drawn and most of them are colored. Opposite each plate is a page with the description of it. The student will find this little book of great assistance in making clear the arrangement of this greatest of serous membranes.

Guide to Dissection. By Irving S. Haynes, M. D. New York: E. B. Treat, 1893.

This is a 12 mo. manual of 250 pages. It comprises three courses in dissection of three weeks each. It aims to supply the beginner with definite directions founded on practical experience in the dissecting-room, and to economize his time by being short and to the point. It seeks to answer the question, "*What shall I do next?*"

BOOKS RECEIVED.

[In sending books for notice in the REPORTER, publishers are requested for the information of the reader, as well as their own advantage, to give the price. This announcement by title will be followed, in most cases by a review, which will appear at the earliest opportunity.]

Diseases of Children, Medical and Surgical. By Henry Ashby, M. D. London: F. R. C. P., G. A. Wright, B. A., M. B. Oxon, F. R. C. S. England: By Wm. Perry Northrop, A. M., M. D. N. Y. and London: Longmans, Green & Co., 1893. Price $5.00.

Chemical Basis of the Animal Body. An appendix to Foster's Text Book of Physiology. By A. Sheridan Lea, M. A., M. D., F. R. S. Price $1.75.

Deutsche Archiv. Pur Klinische Medicin. 50 Band F. C. W. Vogel. Leipzig: 1892.

Deutsche Archiv. Pur Klinische Med. 50 Band. 1 Hept. F. C. W. Vogel. Leipzig: 1892.

Nordiskt Medicinskt Archiv. 1892. Haylet 6.

Medical Education, Medical Colleges and the Regulation of the Practice of Medicine in United States and Canada.

Mineral Springs and Health Resorts of California, with a Complete Chemical Analysis of every Important Mineral Water in the World. By Anderson.

Clinical Reports. By the Medical Staff of the Maryland Hospital for the Insane. Cantonsville, Md., U. S. A. 1892.

The John Hopkins' Hospital Reports. Report in Pathology. II Baltimore: John Hopkins Press, 1892.

Hysterical or Functional Paralysis. By Bastaino. J. B. Lippincott, Philadelphia: 1893.

CURRENT LITERATURE REVIEWED.

THE AMERICAN JOURNAL OF OBSTETRICS

For February contains a paper by Dr. Hiram Vineberg on

Pelvic Massage in Gynecological Cases.

The doctor states that he has discarded the Swedish movements employed by Brandt, for the reason that they take too much time and require the aid of a trained assistant, and also, that he considers his results to be as good without their aid. He employs other methods besides pelvic massage for certain conditions—for instance, a medicated tampon is often placed behind a retroverted uterus. He advocates the treatment by massage for the residua of inflammatory processes, thickened uterine ligaments, adhesions, and displacements of the uterus, tubes and ovaries. Simple enlargement of the tubes he does not consider a contra-indication, but when the tubes contain pus or there is an acute inflammatory condition present, the treatment is dangerous. As one would expect, he has no success in complete prolapsus, but states that massage applied to a uterus that is simply low down in the pelvis, often gives good results. He claims to have been able to have effected an ideal cure in about fifty per cent. of the fifteen patients treated. Incidentally, he makes a remark as to the improper use of pessaries. He has removed pessaries from cases in which the ovaries were swollen, tender and fixed—cases in which it were a criminal act to have introduced one. But after the uterus has been freed from its adhesions and the ovaries replaced by massage, the pessary was well borne and did good service. He considers the objections urged against the procedure, and particularly the one so often urged—the production of sexual excitement, and denies that such is ever the case if the manipulations are properly performed. The paper includes the report of the cases the author has treated in this manner.

Dr. Julius Rosenberg considers the subject of "Accidental Hemorrhage" during labor, with the report of several interesting cases. The author believes the most frequent cause to be a pathological condition of the placenta either from general disorders as syphilis or nephritis, or local inflammatory changes in the uterus, though traumatism is also undoubtedly a cause. The diagnosis and treatment are discussed and the tampon condemned as converting the case into one of concealed hemorrhage. The recent literature on the subject is carefully reviewed.

Dr. Christian Fenger, in an article on the "Total Extirpation of the Vagina for Carcinoma," describes an operation recently performed by him for the relief of this rare condition. The patient whose case is reported in full in the article, unfortunately had a recurrence of the disease for which no relief could be afforded. The subject of primary vaginal carcinoma is carefully considered and the article illustrated with cuts of the operation and of microscopical sections of the tumor removed.

Dr. A. Palmer Dudley contributes an article on

Umbillical Hernia in the Female,

reporting five cases. In the operative treatment of the condition he condemns the use of catgut supporting sutures on the ground of the uncertainty of its absorption. In closing such hernia he opens the sac and frees all adhesions. The sac wall is then dissected from the cellular tissue, cut away and the peritoneum closed by a continuous catgut suture. The two halves of the linea alba are then dissected out and brought into close apposition by a second continuous catgut suture. After this, silver wire sutures are introduced through the linea alba, including at least one-third of an inch of the muscle in each suture. Each suture is shouldered, over the cut surface, after the manner of Dr. Emmet in his perineal sutures. "Over each suture a short canula is adjusted, pressed down firmly on upon the suture, and held in position by a perforated shot upon the wire suture at the upper end of the canula. Cellular tissue and skin are then closed with interupted salmon gut sutures, allowing the canula with their enclosed wire sutures to protrude between the cut surfaces about half an inch above the skin." The author states that no ill effects followed the use of the canula, although in one case they were allowed to remain with their silver wire sutures for almost a month. In discussing the cause of ventral hernia, he points out that they are much more frequently met with since the advent of laparotomy for pelvic disease. The cause is carelessness in the closure of the wound ; unnecessary and prolonged use of the drainage tube ; an unnecessarily long incision ; too early removal of sutures and the neglect to wear a properly fitting bandage after operation. The paper is illustrated with cuts of the hernia and the method of applying the silver wire sutures and canula.

Dr. W. S. Christopher discusses the

Treatment of Summer Complaint,

dividing the disease into two broad classes, characterized by sour or putrid stools and due to the fermentation respectively of carbohydrates and of proteid matter taken as food. The treatment is conducted on the following lines: 1. Maintaining the strength of the child. 2. Removal of the intestinal contents. 3. Regulation of the diet. 4. Administration of intestinal antiseptics. 5. Combating the special symptoms. For the removal of intestinal contents he advocates calomel in three doses of four grains each, at intervals of four hours. Lavage of the bowels he also considers a valuable means of quick evacuation of the intestinal contents. The question of diet is also entered into and, if the author's ideas as to causation be correct, it is

evident that when the stools are putrid the carbohydrates are to be withheld, and albuminoid materials if sour stools are present. Sterilized milk he thinks of value in the prophylaxis of summer complaint, but not in its cure. Subnitrate of bismuth, in his opinion, approaches more nearly to an ideal disinfectant of the bowel than any other drug. It must be used freely in doses of ten to twenty grains, from three to five times daily. Water internally and by baths he considers of great importance. The drinking water should be sterelized. Opium he considers a much abused drug and rarely uses it.

Dr. J. Edwin Michael considers the subject of "Symphysiotomy," reporting a successful operation on a rachitic negress. He advocates the procedure especially in face presentations when the chin becomes locked posteriorly. Dr. R. P. Harris's table of operations during 1892 is appended to the paper.

A similar paper is that of Charles P. Noble on

The Caesarean Section and its Substitutes.

The Porro and Sanger operations; symphysiotomy and embryotomy are contrasted. Embryotomy on the living child is condemned and symphysiotomy or the Caesarean section should be substituted for what he characterizes as murder. His conclusions are that the Caeseran section in typical cases is a safe operation, but should be performed before labor has set in, or during the first stage. The classical operation is to be preferred to puerperal hysterectomy in typical cases, in that it preserves the fertility of the woman, and the mortality of a second operation is no greater than the primary one. Puerperal hysterectomy is preferable in cases seen late, where infection or atony of the uterus is to be feared, or in cases complicated by large fibroid tumors. Symphysiotomy will probably supersede Cæsarean section done for the *relative indication.* Embryotomy is no longer justifiable on the living child as an elective operation.

Dr. Howard A. Kelly presents the "Ethical Side of the Operation of Oophorectomy," publishing the letter of a clergyman, the husband of a patient, or the subject. His correspondent takes the ground that "nothing short of impending death justifies the operation."

PRACTICE

for January contains the report of three clinical lectures. In the first, by Dr. William Goodell, on

Dysmenorrhoea, Menorrhagia and Leucorrhoea.

the author advise the use of the dilator for the relief of the dysmenorrhœa, followed by curetting of the uterine cavity if menorrhagia be also present. The dilation serves to straighten and enlarge the cervical canal, thereby removing the cause in obstructive dysmenorrhœa. After the curetting the uterus is douched with 1 to 2000 bichloride of mercury solution, and packed with a strip of iodoform gauze. Dr. Goodell states that he has never seen any ill effects follow this treatment. Thorough curetting of the uterus is advised in cases of leucorrhœa of uterine origin. The presence of tubal and ovarian disease is, of course, a contra-indication to this treatment.

[Dr. Goodell's position in regard to the harmlessness of dilitation has been freely criticised, and tubal and ovarian disease is said to follow in many instances, necessitating a subsequent section and removal of pustubes.—ED.]

The second lecture is by Dr. Henry C. Coe on

Pessaries.

Pessaries, like other surgical supports, should fit; otherwise they are useless and much of the loss of confidence in them comes from neglect of this rule. Another cardinal point is that they are not used to replace a prolapsed uterus, but to keep it in position after it is replaced. If the patient has prolapsed and fixed ovaries or painful pelvic masses, a pessary cannot be worn on account of pain, no matter how well fitted. The uterus is to be replaced by the fingers in the vagina, with the patient in the knee-chest position and without the use of the sound. The instrument should fit accurately and give no pain to the wearer.

The third lecture is by Dr. A. M. Phelps on

Bond's Operation for Talipes Varus.

"The operation consists in making transverse incisions with a Pacquelin cautery, beginning at the inner malleolus and extending one-third of the distance across the sole of the foot, cutting through the cellular tissue down to the muscles." About four incisions suffice—two semi-circular incisions crossing the transverse. The lecturer believes that if the arch of the foot were well shoved up in place, and retained there by a plaster-of-Paris dressing for a few weeks prior to operation; the latter would be more effectual. He considers it much more scientific to thus shorten the girders of the sole of the foot than to do an osteotomy.

THE OPHTHALMIC REVIEW

for January opens with a paper by Sydney Stephenson upon "The Surgical Treatment of Trachoma." He writes in favorable terms of two operative procedures, namely, "expression" of the morbid material and excision of the conjunctival *cul-de-sac.* For expressing the peccant material he uses two kinds of forceps: First, ordinary stout dissecting forceps, and, second, roller forceps modified from Knapp's pattern. The rollers are nine or ten m. m. in length, that is to say, about half the length of those in Knapp's model, and the cylinders are larger in diameter than Knapp's.

This article is followed by a review of a remarkable work by W. Schoen (Leipzig) on

The Functional Disease of the Eyes; the Causes and Prevention of Cataract and Glaucoma

In some important particulars the author's views upon the Physiology and Pathology of Accommodation and Convergence differ from those generally accepted. He claims especially to demonstrate that during accommodation the contraction of the ciliary muscles causes an increased pressure on the whole surface of the vitreous body, and hence an increased tension in the zonula. The tightened zonula, pulling in a somewhat backward direction on the margin of the lens, increases the convexity of this latter. Thus the united mass of lens and vitreous is compressed by the contraction of the ciliary muscle and changes its globular form into an egg-like form, and the increased convexity of the lens is a part of this change. The review remarks that the alleged increase of vitreous pressure during the act of accommodation is purely hypothetical, and its amount must in any case be extremely small. Careful manometrical experiments on the eyes of animals during the electrical induction of the accommodative act, have failed to detect the slightest change of pressure either in the aqueous or vitreous chamber. Schoen seems to consider that cataract and glaucoma are primarily due to "strain" from uncorrected anomalies of refraction, accommodation and convergence, believing that both diseases may be averted or arrested by the use of proper spectacles. He expresses but little faith in iridectomy as a cure for glaucoma. The book contains three hundred pages and advances much debatable matter. In the words of the reviewer "it represents a vast amount of earnest labor and shows an intense and enthusiastic conviction on the part of its author. We are bound, however, emphatically to express the opinion that the elaborate theories which pervade it are to a very large extent fallacious."

H. Dor (Lyon) has an article

On Contact Lenses.

The author describes the contact glasses introduced by Fick, of Zurich, in 1888. Working on the idea that it was necessary completely to eliminate the action of the cornea, Fick replaced that structure by a glass shell possessing the normal curvature of the cornea. This mask was applied directly to the eye, and the space between it and the cornea was filled with fluid of the same index of refraction as the aqueous humour. After many trials, Fick selected a two-per-cent. solution of grape sugar as most suitable for this latter purpose. Fick's most improved glass had a radius of curvature of 8 m. m., in order to correspond to that of the natural cornea; while a wider part, having a radius of 15 m. m., was constructed to rest upon the scleratic and thus to support the corneal part of the lens. With this lens Fick obtained satisfactory results. Benzoni, an optician of Geneva, has recently succeeded in constructing satisfactory contact lenses, which cost forty francs apiece. Dor finds that the use of these glasses is not very agreeable to the patient, although cocaine renders them tolerable. It is not difficult to place the lens in position, but the introduction of liquid between the glass and cornea is somewhat troublesome. Dor's first patient suffered from conical cornea and central corneal opacity and had double iridectomy performed for the relief of these conditions. Sight of the left eye equal to $\frac{20}{70}$ with a hyperbolic lens, with a contact glass and minus 5 D spherical, the patient recognized $\frac{20}{60}$ and No. 2 Snellen. The patient wore the contact lens for three hours without discomfort. Dor gives a table of five patients upon whom he tested the contact lenses and remarks that the greatest improvement took place in cases of hypermetropia. He concludes thus: "To sum up the contact glass of to-day is not very easy to apply, and renders true service only in irregular astigmatism of considerable amount and in cases of conical cornea."

ANNALS OF OPHTHALMOLOGY AND OTOLOGY.

In the January number of the *Annals* is a contribution upon "Blood effusion between the Retina and Viterous Body" by Dr. F. C. Haltz, of Chicago. In all three of the cases reported vision was perfectly restored. This is followed by

"The Relative Importance of Astigmatism in the Production of Asthenopia."

Second Paper by Dr. Risley. Much of this paper is taken up with the consideration of "what is to be regarded as the refraction of the normal eye." We should have thought that this question had long ago been settled, and we are therefore not surprised that our author should conclude by saying "that the emmetropic eye is not only the model, but the normal eye." Referring to the use of the ophthalmometer he writes, "that it removes the necessity for mydriatic corrections, does not in a very large group of cases accord with my experience." In very many cases the astigmatism is quite accurately estimated both as to the degree and the direction of the principal meridians of corneal curvature; but alas! in very many others its findings are approximations only in both respects, while in others the astigmatism, if in low degree and especially if "against the rule," is entirely overlooked.

Under the title "Does Homatropine, as generally used reveal the whole error of refraction," Dr. W. F. Coleman reopens the vexed question of the reliability of Homatropine as an efficient mydriatic. His experience, as elaborately tabulated, seems conclusively to show, that it is not absolutely reliable even when it is combined with cocaine, in the form of discs and the applications frequently repeated.

In another part of this number is a paper by Dr. Stannard in which he denounces the practice of determining the correction of hypermetropia and hypermetropic astigmatism without the previous use of a Mydriatic, and he considers that "homatropine and cocaine discs containing of each $\frac{1}{50}$ of a grain efficiently paralyse the accommodation." "By the use of one to three of these discs in each eye within 90 minutes, in the majority of cases we may sufficiently overcome the spasm of accommodation."

PERISCOPE.

THERAPEUTICS.

Cocillana—An Interesting Addition to the Materia Medica.

Respiratory inflammations always form a large proportion of the physician's cases. A Bolivian remedy which gives promise of much therapeutic efficacy is Cocillana, which was introduced a few years ago through the researches of Professor H. H. Rusby, the eminent botanist.

Experiments were made with it by many medical investigators, who found its action very satisfactory in catarrhal inflammations of the respiratory organs, in croyza, hay asthma, bronchitis, acute and chronic, influenza, and pneumonia.

It possesses also laxative and purgative qualities, and has been employed successfully as a substitute for ipecac and apomorphia in catarrhal conditions.

MEDICINE.

Duboisine in the Treatment of Hystero-epileptic Convulsions.

Quinine and more recently antipyrine have been recommended in the treatment of the convulsions of hystero-epilepsy. Dr. P. Albertoni, Professor of Physiology at the Medical Faculty of Bologna, now advocates the use of hypodermic injections of half a milligramme (grain $\frac{1}{180}$) of sulphate of duboisine in the treatment of the same affection. He has employed these injections with success in three cases. In the first of these the administration of morphine and antropine had produced no effect on the convulsions which were very violent. They, however, disappeared after two injections of duboisine and since that time, a period of five months, the patient has only had two more attacks, which coincided with the menstrual epoch and readily subsided under the administration of a single injectien of duboisine. The other phenomena of hystero-epilepsy, however, remained unaffected. In the second patient the convulsions also rapidly disappeared after a few injections. The same result was obtained in the case of the third patient but here the administration of duboisine was apparently followed by an exaggeration of the cardiac palpitations from which the patient had suffered previous to the application of the treatment. —*Med. Week, Paris.*

How to Treat Those Who are Overcome with Gas.

1. Take the man at once into the fresh air. *Don't* crowd around him.
2. Keep him on his back. *Don't* raise his head or turn him on his side.
3. Loosen the clothing at his neck and waist.
4. Give a little brandy and water—not more than four tablespoonfuls of brandy in all. Give the ammonia mixture (one part aromatic mixture to sixteen parts of water) in small quantities at short intervals—a teaspoonful every two or three minutes.
5. Slap the face and chest with the wet end of a towel.
6. Apply warmth and friction if the body or limbs are cold.
7. If the breathing is feeble or irregular, artificial respiration should be used, and kept up until there is no doubt that it can no longer be of use.
8. Administer oxygen.—*Med. Times.*

NEWS AND MISCELLANY.

U. S. ARMY FROM FEBRUARY 12TH TO FEBRUARY 18TH, 1893.

Leave of absence for three months, on surgeon's certificate of disability, with permission to leave the Department of Texas, is granted Major James P. Kimball, Surgeon, U. S. Army.

Leave of absence for one month is granted 1st Lieut. Isaac P. Ware, Assistant Surgeon, U. S. Army.

Col. Joseph R. Smith, Assistant Surgeon General, U. S. Army, granted two months' leave, with permission to leave the United States.

Major J. V. D. Middleton, Surgeon, will, in addition to present duties as post surgeon of the Presidio, of San Francisco, Cal., perform the duties of medical director, Department of California, during the absence of Colonel Joseph R. Smith, Assistant Surgeon General, U. S. Army.

First Lieut. Frederick P. Reynolds, Assistant Surgeon, is relieved from duty at Fort Monroe, Va., and assigned to duty at West Point, N. Y.

Par. 1, 2 and 4 of S. O. 34 A. G. O., February 14th, 1893.

The suspension of the order assigning Captain Eugene L. Swift, Assistant Surgeon, U. S. Army, to Fort Yates, North Dakota, is removed.

To the Inauguration Via B. & O. R. R.

The Baltimore and Ohio Railroad announces that on the occasion of the Inauguration of Cleveland and Stevenson on March 4th it will sell excursion tickets to Washington and return at low rates. Tickets reading via the B. & O. will be on sale at its own offices and at the offices of the principal railroad companies throughout the country. Tickets will be sold March 2d, 3d and 4th, and will be good for return journey until March 7th inclusive. For information in detail concerning time of trains, rates of fare, etc., address C. P. Craig, Gen'l Eastern Passenger Agent, 415 Broadway, New York; A. J. Simmons, New England Passenger Agent, 211 Washington Street, Boston, Mass., or James Potter, District Passenger Agent, 833 Chestnut Street, Philadelphia, Pa.

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ORIGINAL ARTICLES.

SAMUEL G. DIXON, M. D.
Involution Form of the Tubercle Bacillus and the Effect of Subcutaneous Injections of Organic Substances on Inflammations. 317

WM. H. LINK, M. D., Petersburg, Ind.
The Apotheosis of Dirt. 319

CLINICAL LECTURES.

MATTHEW D. MANN, A. M., M. D.
Gynecological Clinic, Buffalo General Hospital. . 322

COMMUNICATIONS.

R. P. TALLEY, M. D., Temple, Texas.
Hydrophobia. 325

E. R. PALMER, M. D., Louisville, Ky.
The Present Status of Urethral Surgery. . . . 329

SOCIETY REPORTS.

The Mdico-Chirurgical Society of Louisville. . . 332

CORRESPONDENCE.

The Country Physician. 336

That Unfortunate "Conservative." 338

New York Letter. 339

EDITORIAL

Gynecology Among the Insane from Another Point of View. 341

TRANSLATIONS 345

ABSTRACTS 348

THE LIBRARY TABLE. 352

CURRENT LITERATURE 353

PERISCOPE

OBSTETRICS 356

GYNECOLOGY 356

NEWS AND MISCELLANY 356

NATURAL AND ARTIFICIAL DRYNESS IN CHAMPAGNE.

Natural dryness and the smallest percentage of alcohol constitute the purest and most wholesome champagne, as compared with artificial and spirituous dryness, which admits of a higher percentage of sugar in the wine, while giving a dryer but false taste, as is the case with several of the so-called "brut" wines. By chemical analysis of Prof. R. Ogden Doremus, G. H. Mumm's Extra Dry contains, in a marked degree, less alcohol than other prominent brands, and he recommends it, not only for its purity, but as the most wholesome champagne. These properties and its remarkable quality and natural dryness have made it the most popular, as is evidenced by Custom House statistics of 1892, showing G. H. Mumm's Extra Dry imports to be 75,880 cases, being more than one-fifth of the entire importation and over 9,000 cases more than of any other brand.

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THE
MEDICAL AND SURGICAL
REPORTER.

No. 1879. PHILADELPHIA, MARCH 4, 1893. Vol. LXVIII—No. 9

ORIGINAL ARTICLES.

INVOLUTION FORM OF THE TUBERCLE BACILLUS AND THE EFFECT OF SUBCUTANEOUS INJECTIONS OF ORGANIC SUBSTANCES ON INFLAMMATIONS.

SAMUEL G. DIXON, M. D.

Prof. Robert Koch announced in 1882 the discovery of the cause of Tuberculosis. He claimed that comsumption was produced by a *peculiar bacillus of a special shape.* This he described as a rod-shaped micro-organism with rounded ends, either straight or curved, and frequently beaded. This simple form was accepted as a constant character until the summer of 1889, when I first observed, in an artificial culture on an Agar Agar glycerin nidus, a slight inclination to bud in one or more places along the rod, without the production of any particular angle, some relations forming an acute while others formed a right or possibly an obtuse angle. A single bud could only be recognized with a high power objective focused and illuminated with particular nicety. The indications, however, were so often repeated in each field as the slide was moved upon the stage of the microscope, that I was sufficiently convinced of the presence of branches to review the life-history of the tube in which they were found and to speculate upon the factors likely to have brought about the evident volution. The result was the production of germs with decided *branches,* some of which were quite as long as the parent rods or stems.

This result was published in *The Medical News* of October 19th, 1889. In 1891, Prof. Allen J. Smith observed branched forms of tubercle bacilli in human sputum. Since then Prof. Klein, Herren Fischel, Mafucci et al., have described the branching of this germ. In the summer of 1892 I observed the bacillus in this cycle of life in the liver of the Green Jay of Mexico, *Xanthoura luxosa.* This discovery, coupled with my observations of 1889, and corroborated by the statements of other scientists, must now compel the bacteriological world to recognize a more complex form of the tubercle bacillus than that observed by the great German bacteriologist in 1882.

Since the discovery of the branched form of the tubercle germs in 1889, I have been able to continuously reproduce them on artificial mediums. While the young germs seem to be quite simple in form, appearing in straight rods and rods bent upon themselves, those which have arrived at the age of four weeks, particularly in the presence of an excess of glycerin and in a temperature of 40° C., become branched. The young bacilli, when introduced into the animal tissues, produce tuberculosis, while the older cultures gradually lose their virulence, in all probability owing to their inability to reproduce themselves. This fact indicates that the branched form represents an involution life-cycle of the germ. Notwithstanding the fact, however, that the devitalized,

*Read before the Academy of Natural Sciences, Phila., Feb. 21, 1893.

dying or dead bacilli cannot produce consumption, they, with their products, effect a decided increase in tubercular inflammation, which inflammatory process even results in necrosis of the tissues.

These phenomena led to investigations proving the correctness of the hypothesis first published in my Monograph on Immunity (*Medical News* of Oct. 19, 1889) to wit: "It is possible that, by a thorough filtering out of bacilli from tuberculous material, a filtrate might be obtained and attenuated so that by systematic inoculations a change might be produced on living tissues that would enable them to resist virulent tubercle bacilli." In this line of experimentation I proved that the presence of the germs was not necessary to produce the hyper-inflammatory condition of the tuberculous tissue but that it was a *product* of the bacillus that caused the reaction upon the tuberculous animal tissues. This, since called *Tuberculin* and introduced into the human economy for the purpose of curing tuberculosis, when introduced into animals suffering with artificially produced tuberculosis, often destroyed the condition called consumption and in many cases appeared to produce immunity to the poison of tuberculosis. The process, however, was not quite so successful in animals which had contracted tuberculosis through one of the natural channels. In these cases, tissues surrounding that which was recognized as tuberculous afterward became infected with consumption.

While this was and still is discouraging we have good reason to believe that *Tuberculin* will be permanently established as a remedy for this pathological condition. The toxic albumose causing inflammation of tissues markedly tuberculous, coupled with the fact that it is found in such tissues, led me to inquire whether or not some other constituents of animal tissues, pathological or normal, would produce reaction if introduced in excess into the general circulation. This line of experimentation was begun by first using an albumose of the goat, a comparatively immune animal. This material, however, if at all active as a remedial agent in tuberculosis, is so slow in its effects that I have heretofore failed to produce any marked changes. When, however, in the course of my investigations I overloaded the animal system with some of its waste products, Dr. William L. Zuill, M. D., D. V. S., who has kindly carried on the clinical work on animals for our Bacteriological Laboratory, reported in the *Times and Register* of Sept. 26th, 1891, a reaction by the Amide group on inflammatory tissues, the animals experimented on being tuberculous. As this group included that which we believe to produce the inflammation of gout, I was led to review my experience with tuberculosis in relation to lithemia. Studying this field with the lithemic and tuberculous habits in view, I was soon impressed with the fact that when these diseased conditions were present at the same time in any individual we could claim it to be an exception to the rule.

To determine the special action of the Amide group upon inflamed tissues when introduced into the circulation, a case of Lupus vulgaris was selected and first treated by the subcutaneous introduction of .03240 Gm. of Kreatinin, alternated twice weekly with .130 Gm. of Taurin, urea and uric acid. The average temperature during treatment was slightly raised, though not to any very marked degree, under the influence of such small doses. The more recent patches of lupus, however, became markedly inflamed, being accompanied with a burning sensation. On the third day after the first injection, a marked granulation could be detected around the outer edge by the aid of a strong amplifying pocket glass. This apparently healthy granulation has continued for ten days, in which time the patch has one half of its original area healed. The result shown at this early stage of the experiment is sufficiently encouraging to warrant not only a continuation of the treatment in this case, but in other forms of tuberculosis.

The only other subjects upon which these injections have been tried have been cases of pulmonary tuberculosis in a very advanced stage, where there was too much lung-tissue already destroyed to warrant the expectation of a favorable result. The fact that we apparently have an action on the lupus and no marked result with *small* doses on advanced cases of pulmonary tuberculosis causes me to realize that the line of experimentation must not be confined to tuberculous inflammation, but extended to the action of these organic substances on the entire group of inflam-

matory growths, the effect being produced possibly, by supplying that in which the pathological tissues are deficient.

This line of inquiry, which had its origin in Bacteriological Laboratory of the Academy, has opened up a new and wide field of important scientific medical investigation. The main object of this communication, at this time, is to confirm the original discovery of the *branched form* of the tubercle bacillus by recording the observations of the same life-cycle of that micro-organism found in animal tissues. I have, however, ventured to advance theories and results regarding the action of substances far removed from the bacillus, because they were suggested during my studies of the branched form of that organism.

THE APOTHEOSIS OF DIRT.

WM. H. LINK, M. D., Petersburg, Ind.

When St. Paul first entered the city of Athens, the most striking object to greet his eye was the altar erected to the Unknown God.

The intellectual Athenians having personified every passion, every science and every art, and assigned to each its presiding deity, thought to further promote their own welfare by appealing to the unknown, at the same time in doubt whether they should invoke its beneficence or propitiate its power.

The principle of worshiping the unknown and deifying the mysterious was not peculiar to Athens; nor was it either lost or forgotten during the Dark Ages.

Imagination, the most potent faculty in the advancement of man along any line of achievement, like all power may become potent for evil as well as for good. For "the lunatic, the lover and the poet are of imagination all compact," and whenever "it is a condition and not a theory that confronts us," the theory appealing to the imagination finds its priests ready to serve at the altar whatever be the doctrine.

The history of medicine in its advance from the crudest empiricism of the Egyptians to the brilliant and startling triumphs of Jenner, Pasteur, Lister and Koch, furnishes numerous examples where the imagination, disdaining facts and scorning experience, ran riot with the truth and turned back the wheels of progress.

The mutations of time cannot destroy the golden thread of truth running through all the cycles of medical hypothesis in which working theories are invented by the few and embraced or rejected by the many. While this golden thread is lengthened out from age to age there is its complement of error running in parallel lines. Error being always bolder, more positive and certain than truth, it follows that the medical millenium is very far off when the devil of prejudice and ignorance shall be chained for a thousand years.

It is a peculiar fact which shows the slow advance of scientific knowledge among the masses, that about the time the profession have discarded some theory or abandon the methods growing out of it, the laity will usually have just begun to adopt its worst features and to embrace them with a zeal born of discovery.

The history of the clumsiest practices arising from the wildest theories may be traced in the methods of the common people, who are ever at least an age behind the profession. We often smile at the wise suggestions of some neighbor or old woman, made with all due solemnity, and supposedly in the interest of the patient whom we at the time may be treating. Yet if we would only look backward a few decades, we might find in the teachings of the profession plenty of authority for what the old woman or officious neighbor advocates. All of us in country practice, can recall the many filthy recipes foisted upon the sick in our absence, such as the famous "sheep nanny tea" for measles, urine for "thrash," rattle-snake and earth-worm oil for rheumatism, dog meat for consumption, and dried horse-dung as a styptic application for freshly incised wounds.

There was a time, not long past, when tincture of hog-lice and like delicacies were prescribed by the profession with a firm faith in their healing virtues, on the

principle that the more nauseating and filthy a thing, the more certain and striking its therapeutic results. The omniscient genius of Shakespeare has amply illustrated the confidence reposed in the power of such concoctions for good or evil. In Macbeth, he describes the witches' brew, in which the dynamic influence of the incongruous elements was intensified by the mysterious mummery of enumerating

> "Fillet of a fenny snake
> In the caldron boil and bake;
> Eye of newt, and toe of frog,
> Wool of bat, and tongue of dog,
> Adder's fork, and blind-worm's sting,
> Lizard's leg and owlet's wing,
> For a charm of powerful trouble
> Like a hell-broth boil and bubble."

Our homeopathic brethren yet appeal to the imagination of their followers with triturations and solutions of snake poison and tarantula juice, while we regulars occasionally prescribe Blatta orientalis with a like result, if not from like motives.

On this principle we can understand why any doctrine, whose foundation is cleanliness and whose gospel is purity, has such a struggle with error and such a fight with prejudice. "Ashes to ashes, and dust to dust," is a sentence passed upon all creatures alike, but too many try to execute the sentence upon themselves ere they "shuffle off this mortal coil."

These ideas, prevalent as they are among the major part of humanity, are not likely to produce any effect beyond emesis so long as they are confined in their application to the internal medication of the sick.

It is when applied to the practice of obstetrics and surgery that disaster follows in their wake.

It is the presence of crude notions, the distribution of ignorance and superstition, the influence of the mysterious and the hold which precedence has upon the imagination that enables midwives to ply their calling, even in localities where enlightened and scientific physicians abound.

In the natural world phenomena constantly occur which are paralleled by close analogies in the moral world. Geology tells us that in the great cataclysms of past æons where whole genera have become extinct, there is often a single species left to call attention to the myriads that have become destroyed or that have disappeared in the ordinary course of evolution. Reasoning in this way some of our naturalists suppose the great modern sea serpent is nothing more nor less than a last remnant of those ancient monsters that swam about in prehistoric seas as gigantic sea-lizards. The botanist is sometimes agreeably surprised to find a plant representative of the carboniferous ages when gigantic ferns left their skeleton markings in the buried coal measures.

In the same way the midwife and the faith doctor stand to-day — living representations of that mythological period in medicine when tom-toms, artificial thunder, and various preparations of filth and venom banished disease whether the demoniac or some other equally absurd pathological theory obtained. As the midwife was then she is to-day. As she is in one locality she is in another. Even now when medical schools have thrown open their doors to women and men alike, the midwife exists with the divine attributes of ubiquity and immutability. She is the same yesterday, to-day, and forever, and she is everywhere offering and giving her services to rich and poor, high and low. Thus

> "With equal pace impartial Fate
> Knocks at the palace and the cottage gate."

The streptococcus of erysipelas, the staphylococcus pyogenes—both aureus and albus, the bacillus of Lœfler all laugh when she appears, for they recognize an old friend who is to transplant them to virgin soil. The gonnococcus of Neiser has been known to "prove up" on a quarter section of her vagina, and larger bugs like the pediculus pubis and the pediculus vestimentorium have been reported to have "staked out a claim" on her person, while she is always "at home" to that noble old Roman family the Cimex Lectularii.

She is one who is graduated into her calling by a variety of circumstances and a number of qualifications.

There is usually in every community some old woman who has a husband to partially support. Being poor and ignorant she is ready to half eke out a meager subsistence by turning her hand to any little odd jobs around the neighborhood. She "cleans the guts" at hog-killings for half the soap-grease. If any old sheep of a neighbor farmer dies, just as soon as it gets ripe enough for the wool to slip, she picks it on the halves. For these and other reasons, she soon has a reputation as one whose stomach nothing can turn.

Having once established a character of this kind she is immediately in great demand for dressing any specially virulent old sore or ulcer which persons in her vicinity may happen to possess. She not unfrequently has some wonderful salve which will do most anything from drawing a nail or splinter out of the foot to "healing all burns without a scar." The basis of this ointment is always both cheap and nasty, being most often the excrement of some one of the domestic animals; the favorite menstruum is usually goose grease and the corrigens and adjuvans may be anything from elder-bark to fried "cow-cumbers."

When anyone near her dies she is always the first one called upon to wash and lay out the corpse. Finally the time arrives when she is to meet the crowning triumph of her life, to put the cap-sheaf on her career, to add a new laurel to her wrinkled brow—the final accolade, to which all her other experiences have been gradually but surely leading her, and for which they have been just as certainly and thoroughly preparing her. Some woman in labor hurries up, or the doctor is delayed, and the child is ushered into the world with no help but Aunt Handy, who at one bound has become a mid-wife, with all that the name implies. She cuts the cord, smears the stump with some of her favorite salve and then proceeds to make the mother comfortable by taking a pull on the part of the cord left hanging out of the vagina, while kindly having the patient walk around the room to assist nature as much as possible. In order to save the bed she puts some old dirty quilt under her charge, while a due regard to her clean linen causes the patient to go through the parturient process dressed in clothing that nothing can soil.

Our newly fledged midwife has several qualifications soon added to those vouchsafed her by the long course of training she has undergone, which give her peculiar strength in a way. Having suddenly become what her ambition had long led her to hope for, she "fixes up" for the business. Heretofore her wardrobe for state occasions consisted largely of a calico dress. But it had one defect, it showed dirt, and had to be washed once or twice ere it succumbed to the ravages of time and travel. She now invests in something "all wool and a yard wide" which will not *show dirt*, and which may be worn for years without washing. This being her "Sunday-go-to-meetin' dress" she wears it only when laying out the dead, nursing some bad case of erysipelas or child-bed fever, or when waiting on a parturient woman.

Her hands are hardened by toil and seamed by exposure, and her nails being useful in picking wool and doing other labor, are not always "trimmed to the quick" nor free from a suspicion of real estate. Handkerchiefs not being plentiful in her wardrobe, she wears a long apron to protect her dress and to wipe her hands and blow her nose on. The latter act she deftly robs of its poetry by turning the under side to the front and depositing the accumulated secretion of the schneiderian membrane on the part of the apron thus newly exposed; she then gives it a rub or two between thumb and fingers in order to spread it over as much surface as possible, for drying if not for cosmetic reasons. The apron is then dropped till necessity compels her to repeat the performance.

Being thus equipped she is at once the personification of filth, the apotheosis of dirt, the concrete exponent of ignorance and the coëfficient of sepsis. She ought to be suppressed by law unless she will become properly educated for a correct and safe discharge of her responsible duties. When she is thus instructed she will be an accomplished physician; for the very highest medical knowledge and skill are essential to a proper and safe discharge of the duties devolving on the obstetrician; and it is utterly impossible for an ignorant and half trained mind to grasp even the science of the mechanism of labor, much less the many physiological, pathological and other questions which pertain to parturition.

We often hear that a young man has the ability to carry on a certain line of business. If carefully analyzed we believe this ability will be found to consist of

1. Honesty.
2. Industry.
3. Economy.
4. Sobriety.
5. Consistency.
6. Prudence.

The last of these will prevent him from investing in an outside enterprise unless he can afford to lose the money should it prove a failure.

CLINICAL LECTURES.

GYNECOLOGICAL CLINIC, BUFFALO GENERAL HOSPITAL.

MATTHEW D. MANN, A. M., M. D.

DYSMENORRHŒA.

A young woman comes before us suffering with dysmenorrhœa. The case has proved intractable and it is one of true dysmenorrhœa, the pain being due to the menstrual function. I want you to start in practice with the idea that all the pains which a woman may suffer at the time of menstruation are not the pains of dysmenorrhœa. I recall a case of ureteritis accompanied by continual pain which became intolerable at the menstrual epoch. Such pain accompanying but not directly due to menstruation should not be called dysmenorrhœa.

Menstruation may be defined as a periodical loss of blood from the uterus and, therefore, the pain of dysmenorrhœa must be due to a cause in the uterus itself. In this case the pain never disappears during the menstrual period, but it is increased at times and there are occasional exacerbations of pain with spasms.

On making an examination I find that the uterus is acutely anteflexed and, on passing a sound into its cavity, I meet with a distinct constriction at the internal os. This is not due to flexion for when I straighten the uterus the instrument still passes with difficulty and "jumps" over an obstruction at the internal os. The passage of the sound causes great pain, especially as it touches the internal os. The patient has a few little clots come away at each menstruation and it is their passage over the supersensitive mucous membrane in the vicinity of the internal os that causes the exacerbations of pain.

Having this definite anatomical basis for the dysmenorrhœa we can, in all probability, effect a cure by relieving the condition. I shall, therefore, curette the uterus, dilate the canal and straighten the axis of the uterus by the dilatation and by packing with iodoform gauze. I do not believe that anteflexion alone will cause pain, for I have seen many marked cases of anteflexion without dysmenorrhœa, but anteflexion, by increasing the congestion of the uterus, may indirectly increase the dysmenorrhœa. The real cause of the dysmenorrhœa is an endometritis, and this may be aggravated by the congestion. Forcible dilatation and packing of the uterus will merely change its position. While the anteflexion will not be entirely cured by these means, the sharp angle will be removed and this source of pain will be obviated, while, indirectly, the endometritis will be benefited. You will remember that last week I curetted a uterus on account of granulations with excessive menorrhagia—an entirely different condition from the mild endometritis here present.

The hymen prevents the introduction of the large blade of the speculum. It will stretch, however, sufficiently to admit the small blade, so that there is no need of rupturing it. With a little traction on the forceps I can pull the cervix into view. On attempting to pass the uterine sound I came up against a distinct constriction, but by bending and working the sound I get it through the constriction. The grating of the instrument over the rough endometrium can be felt distinctly, and if the patient were not under the influence of ether she would suffer greatly from this manœuver. The dilatation of the uterine canal is begun with Palmer's instrument which is not very powerful because the ends bend and, as you see, they have slipped out. I next introduce Goodell's powerful dilator. There is a graduated scale to indicate the degree of dilatation, but it is on the wrong side of the instrument for our convenience since, by the inventor, Simm's speculum and the Simm's position are rarely used, the patient being placed in the lithotomy position and the cervix exposed by means of a short bivalve speculum. I dilate the cervical canal gradually to the extent of $1\frac{1}{4}$ inches in order to introduce Holt's cervical speculum. The contractile force of the cervix is still so great that the speculum is forced out, and along with it a large quantity of jelly-like mucous, which is proof positive of cervical endometritis. I have now reintroduced Holt's speculum and, through it, the

uterus is washed out with a bichloride solution. In using Simm's position it is important to have the upper knee slightly in advance of the lower one so that there will be a space for the water to run down without wetting the patient's garments. The uterus is now curetted, sponged out with absorbent cotton and then packed with iodoform gauze, the cervical speculum being used to facilitate the passing of the gauze into the uterus. The gauze will be left in place four or five days unless it comes out spontaneously, sooner.

OVARIAN CYST.

Here is a small ovarian cyst which I found, buried in a mass of adhesions, deep down on the right side of the pelvis. I found a line of cleavage in the adhesions and, as they were not very dense, I succeeded in passing my fingers under the tumor and in gradually enucleating it. On pulling the tumor out of the abdomen I found that the pedicle was small. There was no bleeding of any account and I inserted no drainage tube. From some unaccountable cause the patient developed a high temperature, 104.5°, but the pulse never rose above 110 and, as the patient was of a very nervous temperament, I did not feel much alarm. The temperature remained high for three days and then dropped to normal. Strangely enough the patient referred her pain to the side opposite that of the tumor.

UTERINE FIBROID.

Here is a large fibroid tumor which was removed a few days ago by supra-vaginal hysterectomy. You can see the cavity of the uterus at the plane of section at just about the internal os. The diagnosis was properly made, the woman was suffering so much that she was willing to run almost any risk to get well. The pedicle was secured by the clamp. The patient is doing well, having had only a slight rise of temperature.

MULTILOCULAR OVARIAN CYST.

This is an ovarian tumor whose exact nature I was unable to diagnose. It proves to be a multilocular cyst, but even now, putting my fingers first on it and then on the soft uterine fibroid, I can distinguish no difference in the sensation. The moment that I saw the tumor through the abdominal incision I could tell by its bluish color, that I had to deal with an ovarian cyst, the fibroids being of a dark color and congested. I was obliged to make a rather large incision in order to get the tumor out, otherwise the operation was a simple one. One of the little cysts had burst in the abdomen and some mucoid material had escaped into the peritoneum, causing a slight local peritonitis. The only way in which I could remove the tumor was to open it and clear out some of its contents, thus diminishing its size sufficiently to render its passage through the abdominal wound possible. The fibroid weighed four pounds and a half; this cyst about ten pounds with the fluid. The patient is doing well.

OVARIAN CYST, UTERINE RETROVERSION.

There is nothing especially interesting with regard to this specimen in itself. It is simply an ovarian cyst of considerable size. There were four adhesions in front; the growth had been rapid, dating back only eight months. The pedicle was at least six inches broad but very thin, so that there was no difficulty in disposing of it. The interest centers in the condition of the uterus, which, at the first vaginal examination, was found pressed down by the weight of the tumor into a state of retroversion. The diagnosis was verified at the time of operation and, after removing the cyst, it was found that the round ligaments had become stretched so much that there was no effort on their part to hold the uterus up in place. To have sewed up the abdomen with the uterus in that retroverted position would have caused needless suffering, especially if the uterus were to be kept functionally active by the presence of an ovary. In this instance I removed both ovaries, but whether that is done or not, I think it is the duty of every operator, after removing a tumor from the pelvis, to carefully examine the position of the uterus, and to correct it, if such correction be necessary, before he closes the abdomen. For I believe that even after the removal of the ovaries a retroversion may cause trouble. On this point I insist most strenuously. Young operators especially are too apt to be content with the completion of the originally planned operation, and to leave the correction of such a comparatively small matter as a displacement unattended to. This is all wrong. We should leave nothing undone which may count for the

future welfare of the patient. All the pelvic organs, the whole abdominal cavity in fact, should be carefully explored, and any pathological condition which may be found, corrected at the time, provided it is amenable to surgical treatment.

Now, in this case, I found that by pulling on the round ligaments I could bring the uterus into proper position; hence the indication for relief was clear. The first operation for shortening the round ligaments was brought into notice by Alexander, of Liverpool, and is generally known by his name. I attempted this operation very soon after its introduction into this country. At first I failed to find the round ligaments. But, after careful dissection on the cadaver, I met with no trouble; especially after I had adopted the plan of opening the inguinal canal and seeking the ligaments within its borders. Still my experience with Alexander's operation has not been happy. After finding the ligaments I have several times discovered them to be adherent, or too weak to bear pulling out. The patients have also, in several instances, experienced great pain and "pulling" in the scar afterwards, so that their last state has been as bad as the first.

From these experiences, and from the fact that Alexander's operation takes no account of any possible co-existing disease of the uterine appendages, I have almost entirely given it up. The number of my cases have not been large, and I would not like others to draw too positive inference from my experience. I am myself open to conviction in the matter, and am willing to take it up again if I see good reasons for so doing, and especially if the element of doubt can be removed from the result. I have, however, yet to see the operator who does not sometimes meet with failures, and only recently an acquaintance told me that he had seen five failures in the Women's Hospital, of New York, from this operation.

It is certainly not a desirable operation when we have the abdomen open and the round ligaments accessible. There are three or four different plans of shortening the ligaments under these circumstances. We may lap the ligament on itself and take a couple of stitches so as to hold the folds together. Inflammation and consequent adhesion of the peritoneal surfaces of the ligaments will bind the folds together. I prefer silk sutures as being more permanent. This is Wylie's operation. Polk's operation consists in doubling in both round ligaments just in front of their attachment to the uterus and sewing the two loops together. If, at the same time, the loops are sewed to the fundus uteri by a stitch running under each ligament and through uterine tissue (Dudley's operation) the attachment of the ligaments is made to a higher point of the uterus where they have a mechanical advantage in overcoming the tendency to posterior displacement. In this case there was a little fibroid tumor the size of a marrow-fat pea in just the right spot for the attachment of the ligaments. I removed the fibroid, controlled the hemorrhage by pressure and stitched the ligaments to the uterus at this place. There was still a little oozing which I controlled with persulphate of iron, for any exudation in front of the uterus would require a separate drainage-tube from that placed in Douglas' cul-de-sac, and I did not want to put in two tubes. There was considerable oozing from the abdominal wound, so that it was necessary to insert a posterior drainage-tube, but this was removed after twenty hours.

Even if you do not do laparotomies yourself these points will be of service to you. The specialist to whom you take your cases may be one who does not pay much attention to displacements, and it would be perfectly proper for you to insist that at the time of operation he should correct the displacement of the uterus. The correction of the displacement does not complicate matters at all at the time of the operation and it adds greatly to the chance of perfect recovery later. I am treating cases at this very day which, I believe, would have recovered completely had I corrected the uterine displacement at the time when an ovarian tumor was removed. Text-books have not yet begun to insist on this point, but I have called attention to it several times in the last two or three years. The time is past when we simply looked out for the life of a patient at a laparotomy. Good operators lose not more than four or five per cent. of all kinds of cases. We must have in mind the entire future welfare of the patient and do everything at the time of operation that will exert a favorable influence on the general health of the woman.

COMMUNICATIONS.

HYDROPHOBIA.*

R. P. TALLEY, M. D., Temple, Texas.

I feel reasonably certain that what I have to say on this occasion will, to some extent, antagonize the views of a large majority of the medical profession and, therefore, I shall expect criticism; but this is the common lot of all searchers after truth, and just in proportion as the investigations of these searchers after truth or facts tend to upset popular fallacies, so in that ratio is the criticism of their efforts liable to be more or less unjust. I know of no more difficult or thankless job for the truth-seeker or man of science than to endeavor to upset a popular fallacy. Most persons say in the language of Shakespeare:

> "Until I know this sure certainty,
> I'll entertain the favored fallacy."

My sole object is to work in the interest of truth. Notwithstanding the much lauded words of Lord Justice Knight Bruce, that "Truth, like all other good things, may be loved unwisely, may be pursued too keenly and cost too much;" I say, let us get the truth and the facts in all matters coming under our investigation, cost what they may. I have no higher God to serve than truth, and no lower and baser hell to fear than falsehood.

Hydrophobia is generally used by the profession and the laity to indicate a disease, when in fact it is only one of the symptoms of a supposed disease. Dunglinson says, "The term rabies is more appropriate for the aggregate of symptoms resulting from the bite of rabid animals. Hydrophobia literally signifies a dread of water; and, consequently, ought to be applied to one of the symptoms of rabies rather than to the disease itself." I, therefore, prefer to use the term rabies in this discussion.

At the very threshold I assert that there is not now, nor ever has been, any such disease as rabies outlined and defined with any certain and definite symptomatology. I have not found a line in any of the medical literature to which I have had access during the past thirty years, by which I could certainly and definitely identify any morbid condition as rabies. This name was born with the very beginning of medical literature, but neither the medical profession nor the laity have been able to identify the disease bearing the name, beyond all doubt. It is an illustration of how unfortunate it is "to name the child before it is born." We have the name, rabies, but where is the disease? Compare the symptoms, the evidence required thirty or forty years ago to make out a case of rabies with what is required now, and you will find there is no substantial agreement.

If rabies ever existed it does now, and conversely, if it does not now it never did. True disease, a disease entitled to the dignity of a name, must represent some unvarying morbid change in some element of the physical or mental organization. For example, diphtheria, small pox, etc., were the same in the seventeenth century as to-day; they are recognized by the same symptoms now as then, and these symptoms depend upon certain recognized, stable, morbid processes. But upon what stable, recognized or certain symptoms can we determine the existence of rabies? I insist that the evidence to identify rabies in court, either physical or rational, is all along the line simply negative. If there is any positive testimony, where and what is it?

In seeking to find out some definite way to diagnose this so-called disease, it is sickening and discouraging to read the great and numerous contradictions found in its clinical history, as given in medical literature by the best writers of the past and present time. If those who take a different view of this subject will, unbiased, read this literature, I think they will at least conclude with Dr. Brill, of New York, that the existence of the disease called rabies has not yet been proven. After referring to cases clinically reported forty years ago as

*Read before the Central Texas Medical Association, January 10, 1893.

well as at the present time, he says: "These cases are sufficient to show the variable character of the clinical histories, and serve to uphold the statement, which I have elsewhere made, that no two cases of this alleged infectious disease are alike; also that the symptoms of rabies considered to be characteristic of the disease by the earlier writers are not mentioned as such by those of the present day. Its alleged etiology shows as great discrepancy and absurd statements as could possibly be mentioned." A little farther on he says: "The animal, some claim, need not be rabid to produce the disease. Others deny this statement; some assert that the disease can originate in the animals named, (meaning the canidæ, mustelidæ and felidæ), *de novo*; others deny this absolutely and ridicule such a belief." He then says: "We deny to-day, as we denied some years ago, that there is any specific infection from the bite, or, that the existence of the disease in the dog has been sufficiently well established."

I admit, because it is a physical tangible fact, that disease and death result from the bite of dogs, mad from any cause. But, I contend, that it has not been proven in any logical or otherwise satisfactory way, that the cause of this so-called disease is from any specific infectious poison of invariable qualities, introduced into the system by the bite of a dog. In my judgment rabies is a hypothetical disease for which the whole world has been trying for centuries, and trying unsuccessfully, to establish an entity. Where, I ask, is the microbe of rabies? I have not heard that it has been identified in any court of competent pathologists! And, where is Pasteur and his treatment of rabies to-day? I have not read anything from him for some months, but not a great while ago, he was still as usual changing his views on the subject and swearing by the last as the only treatment. If he keeps jumping it will be difficult to overtake, much less keep up with him. However, I have a good word and a warm place in my heart for Pasteur. Perhaps he has demonstrated that, pathologically speaking, there is no such disease as rabies, and, therefore for this, if for nothing else, humanity owes him a debt of gratitude.

It is my opinion now that all deaths in animals such as the dog, wolf, cat, etc., from the so-called rabies, could be more satisfactorily accounted for by diseases and injuries well-known, and explained by proper pathological and physiological investigation, without wasting time trying to make an entity for rabies. It is an indisputable fact that whenever a domestic animal, as the dog is sick so as to lose his common sense, the laity, and far too many doctors, at once say it is *mad*—has hydrophobia, and can be killed none too quickly. Then and then only follows the great and most serious cause of trouble for human beings, and this is *panic*. This panic is not confined to the patient himself, but it extends to all of his associates as well. It grows in seriousness and intensity with each day. There is no one to even attempt to allay it. Well-meaning but misguided friends tell of all the horrible deaths from rabies of which they have ever read or heard; the doctor looks wise, as usual, and it may be sympathetic, and, in as kind and loving manner as possible tells the patient, his relatives and friends that there is no cure for it, that it always ends in death of the most painful and excruciating character and that it may come at any time in from 9 days to 9 or 100 years! Given the same panicky surroundings, would not any other disease prove equally and as certainly fatal? While it is a fact that the most fearful suffering and death follow the bite of certain animals, whether mad or not, yet, n my judgment, there is no disease *ab initio* entitled to the name of rabies, *except* this form of panic. This panic may destroy life, as has been proven many times, negatively at least, by post-mortem examinations without any sort of anatomical lesions. This is freely admitted by the most enthusiastic advocates of the disease called rabies.

Only a short time ago I received from the author, Dr. Arthur E. Spohn, of Corpus Christi, Texas, an article on "Rabies and Anti-Rabic Inoculations." I need hardly say he is an enthusiastic advocate of the disease and Mr. Pasteur's cure. He says: "The disease is generally described as having three stages: Melancholy, irritation and paralysis.

Each stage has its peculiar symptoms. A person is bitten by a rabid animal; before the period of incubation of from 16 to 199 days has passed, if the patient is very nervous, we are liable to have emotional symptoms, or spurious rabies,

where the symptoms will simulate all accounts of hydrophobia he (the patient) ever read or heard of. I have known them to have attacks of intense melancholy commencing within a few hours of the injury. I believe many persons die from spurious rabies and, while in no way depending on a specific virus, if continued will run into melancholy, irritation and death. It is in such cases, and they are far the most frequent, where properly directed treatment will have a beneficial effect; while for the true rabies there is at present no known remedy, our only hope is in prevention.

"This period of incubation, or latent period, lasts from 16 to 199 days, an average of 48.73, which corresponds with the period given by Mr. Youatt of from 42 to 49 days. During this latent period the wound generally heals; the person returns to his ordinary avocation, still is not free from suffering, often becoming extremely nervous, restless and excitable—living in constant dread of the approaching results. It is this state of uncertainty which makes rabies such a terrible affection. On many occasions I have been consulted by persons months and even years after they had been bitten by supposed rabid animals, telling me that their lives were completely useless; living in constant dread of the horrible results. One man who was under my observation had been bitten by a wolf. For about a year and a half he suffered intensely, was not able to attend to business and died of paralysis. I have no doubt this man died from the result of the injury."

It will be observed that Dr. Spohn says there are two kinds of rabies, the real and the spurious, of which the latter is far more numerous. It will be further observed that he says the maximum time for incubation is 199 days, yet this man's death occurred 547½ days after he was bitten. The doctor says he has "no doubt this man died from the result of the injury," nor have I the least doubt of it, but it was 547½ days of panic which killed him not rabies. This was the anatomical injury, the pathological condition which caused his death.

Dr. E. C. Spitzka, of New York, who is an educated gentleman, and one who has had large experience in veterinary medicine, says he has never seen a case of true hydrophobia. In writing upon "How We Can Prevent False Hydrophobia," he quotes the following from Pepper's System of Medicine by American Authors, the particular author quoted being a believer in the reality of hydrophobia. The quotation refers to cases of more than usual interest and I offer no apology for giving it at length.

"The langor and nervousness attendant in extreme heat tend not only to hasten the activity of any disease germs actually present in the system, but also strongly favor the increase of that nervous fear which so often generates a fatal psuedo-hydrophobia (lyssophobia) in persons that have been bitten by dogs.

The most difficult to distinguish from the general disease are those cases in which hydrophobia occurs as a disease of the imagination, the result of fear, the lyssophobia of the writers. In these there is always the history of a bite, the cicatrix even may have become the seat of congestion, redness, itching, or neuralgic pains and these, acting on a susceptible brain, develop a disease which is hardly distinguishable from true hydrophobia and which is quite as fatal if left to run it course. These cases have usually less reflex susceptibility than genuine hydrophobia; the attack mostly occurs shortly after some conversation on the subject, and especially about the effects of the bites on others, and the victim is seen to have been subject to hysteria or other nervous disorders. *At the same time the concentration of the mind on this subject sometimes produces even structural changes in the medulla*, and the reflex susceptibility in coördination with the other symptoms may be almost perfect. In a case reported a few years ago by Hammond, the symptoms appeared perfectly characteristic, and at the necropsy circumscribed points of congestion were found near the roots of the vagus; yet the dog that bit this man was said to be alive and well, and, in the absence of any successful inoculation from biter or bitten, the case must be presumed to have been lyssophobic.

Many cases with a more favorable issue are recorded. Bellenger had a patient who had been bitten by his cat and manifested violent paroxysms of hydrophobia, but was instantly cured by the sight of the animal in good health. Browndel records the case of a man that was bitten by his dog, which

afterwards disappeared. He was seized with severe hydrophobia which continued for two days; when the lost dog was found and presented to him the symptoms disappeared. Trousseau speaks of a magistrate whose hand had been bitten by his hound, which immediately after attacked a flock of sheep, so that many of them died from rabies. The master then manifested hydrophobia, but, as death was deferred beyond the usual time, he concluded it was not genuine and recovered. Professor Dick was called to visit a man who had been bitten by a favorite dog, which, while suffering from distemper, had manifested severe hydrophobic symptoms, and had been given up by the attending physicians. He succeeded in convincing the subject that as the dog had had distemper and as no two great diseases could exist in the same system, it could not have had rabies. In spite of the false premises this reasoning had the desired effect and the patient recovered. A few years ago a boy, 12 years old, in Ithaca, N. Y., was bitten by a dog supposed to be rabid and, in due time manifested hydrophobia, which advanced rapidly until he was having a violent paroxysm every half hour, and it was pronounced impossible for him to survive another day. At this time I saw him, observed that he had a nervous organization and was somewhat lacking in the hyperæsthesia of rabies. I learned that he had recently been gorging himself with Christmas delicacies and was very costive, and as there was no satisfactory history of the dog, I at once suspected lyssophobia. The friends and strangers who had come to condole with the parents and feast on the horror were excluded, and the boy's attention fully engaged in amusing pictures and conversation. The paroxysms were omitted and, in two hours, the patient overcome by weariness, went to sleep. Next morning he was still kept secluded and quiet, and two enthusiastic students took up the role of keeping his attention constantly engaged on whatever would interest him. The *prima via* was relieved by medicine, and under a course of tonics he quickly recruited, and at the end of the week went back to school."

Dr. Spitzka also relates the following: "A case occurred in this city a few weeks ago, which illustrates how a little good sense on the part of a physician may avert a calamity in the same manner so happily effected by Professor Law. A boy of 13, had harnessed his own and another large dog to a boy's cart. The reins got entangled and the dogs quarrelled. The boy went to the assistance of his own dog and was snapped by the antagonist. He thought little of it; but the boys on the street told him he was doomed to die of hydrophobia. Some grown-up imbeciles—not inmates of a lunatic asylum, but fellow citizens entitled to vote—joined in this verdict, and the poor boy came home with his face as white as chalk, kissed his mother good bye and, saying he had to die, disposed of his little possession. The family physician was called in about 8 o'clock. Instead of pooh-poohing the matter which, though practicable, would not have effected his purpose so well, he said: 'Well, my boy, I see how it is, you are passing through a crisis. If you survive 9 o'clock this evening you are positively safe." The child's attention was thus fixed upon the minute hand of the clock; after it had passed the critical point no more hydrophobia was heard of in *that* house."

Cases of the kind above described have induced the advocates of rabies to divide it into two kinds, true and false, or hydrophobia and lyssophobia. The only real distinctive features between the two being these: if the patient dies it is true hydrophobia, but if, by any means, the panic to the mind is allayed and the patient recovers, then it is beyond all doubt or question lyssophobia. All this seems to prove and confirm the assertion I made in the beginning that the disease is altogether the result of panic. I do not believe there is a well-established case on record, of the death of anyone from this so-called disease, where the mind of the patient has been fully and entirely relieved from the intense strain and pressure it always undergoes in such cases. See how many are cured, as they call it, by the application of mad stones. Scientific men know there is no intrinsic virtue in them, yet they allay the panic in the mind, and thus afford relief. Anything else affording relief to the mind would answer the same purpose.

I believe it is Green who, in his work on pathology, says: "If the habit and thought of the medical minds were more analytical and, if physicians would reason and draw conclusions logically, governing

their deductions by strict logical law, many changes would be made in the now accepted opinions of etiology and pathology." Let us endeavor to follow his advice. Let us seek truth for its own sake, and when we find it let us open the doors of our minds and receive it no matter how many old theories and popular fallacies it may drive out. In the language of the Bible, let us prove all things and "hold fast to that which is good."

It will be observed that the most zealous supporters of the theory of hydrophobia admit that people have suffered and died from false hydrophobia, and it is also admitted that a large majority of the cases are of this kind. Hence, it follows that the people have been so educated, and improperly educated that, before this so-called and pretended disease, they become panic stricken and die most terrible and excruciating deaths. Remove the great fear, the intense dread; in short, prevent or, at least, allay the panic and the disease will disappear like dew before the morning sun. The medical profession has contributed largely to the false education of the people on this subject. This being the case, is it not incumbent on us to use our best endeavors to correct this great, serious and fatal error? If we have in the past in any way contributed towards educating the people so that they become panic stricken and die, is it not our duty to now use our best endeavors to restore their calm reason; remove the panic, in short, educate them to live?

THE PRESENT STATUS OF URETHRAL SURGERY.

E. R. PALMER, M. D., Louisville, Ky.

Otis published his first case of successful urethrotomy with the Otis instrument, in the *New York Medical Journal* in 1878, and it may be safely said that in about the year 1883 the craze of promiscuous internal urethrotomy struck this country. That Otis has done much good work, and has contributed some valuable and vital information to genito-urinary surgeons is beyond peradventure, but that the operation has been very much misused, and very much abused, and very widely and unwisely applied is also beyond peradventure. In June, 1890, I reported fourteen cases of successful internal urethrotomy for close stricture at the bulbo-membraneous junction, without perineal section. When Otis went abroad early in 1880, and advocated his operation on the principle that all gleet was dependent upon stricture, that all stricture could be cured by internal urethrotomy, I may say that the foreign surgeons almost without exception, opposed his doctrine; and notably the English, among them Mr. Harrison, who declared it was an unsafe, dangerous and unsurgical procedure to cut stricture of small calibre by internal urethrotomy, without at the same time making a counter opening in the perineum so as to permit the escape of urine, and to prevent the danger of hemorrhage into the bladder.

As before stated, in 1890 I reported fourteen cases of urethrotomy for close stricture of the bulbo-membraneous juncture without external urethrotomy, without a single complication and with a permanent curative history. At the meeting of the State Society in June last, I reported twenty additional cases, unselected, of the same operation, with the same history. I have here copied from my case book for 1892, a list of fourteen more cases of operation for close stricture, in men who could not urinate except with the greatest difficulty, and in some cases could not urinate at all, where the catheter even could not be passed. Fourteen additional cases of urethrotomy without external urethrotomy, and in these fourteen a history of complete cure in every case.

At the meeting at Altoona, the opinion of nearly every one present was to the effect that Harrison's operation, namely, the operation through the perineum, should be done jointly with internal urethrotomy. Last June at the meeting in Richfield Springs, New York, Dr. Taylor made the

*Read before Medico-Chirurgical Society, Louisville, Jan. 20, 1893.

statement that he was entirely in accord with me in the belief that the operation for close stricture in the urethra could be safely done without perineal section, with as much assurance of permanent curative result, as if the operation advocated by Harrison, viz: the opening of the perineum into the membraneous urethra—was done at the same time as the operation for internal stricture. So that I feel—with a report now of something in the neighborhood of fifty cases without a solitary case of hemorrhage into the bladder, without a solitary case of complication of any sort, and these unselected cases running anywhere from twenty-one to seventy-four years of age—that I am safe in claiming that there is no necessity for opening the perineum when it becomes evident to the surgeon that it is necessary to do an operation for close stricture of the urethra.

The most important thing about operations for stricture of the urethra is the proper classification of cases. It goes without saying that there are men here to-night who would continue to discuss until daylight as to the most desirable mode of treating urethral stricture, as between dilatation, or divulsion, or section by the knife. Beyond any question a great many surgeons have very unwisely cut the urethras of men suffering with stricture, and beyond all question one of the results of unwise cutting of the urethra for stricture is impotence and a more or less permanent deformity of the penis during erection. Beyond any question the operation is being done too often and very unwisely by men who claim that all cases of unsymmetrical urethra or of gleet should receive the knife. I think it has never been emphasized as it should be, that the law of inverse ratio is nowhere more positively exemplified than it is in urethral stricture, namely that the worse the stricture the better the result. When I first began working in the matter of urethral stricture I cut nearly everything where there was any contraction or any irregularities that the bougie a boule would detect. I did not believe there was much virtue in the treatment by sound for permanent cure of stricture. Since then however I have changed my practice and never cut a stricture until it has been demonstrated that it cannot be cured by dilatation, or until it has become an extreme case of close stricture. I now seldom cut a stricture of large calibre, but do cut all close calibre strictures and, as before stated, the worse the case the more certain and permanent the good result. Before showing one or two instruments I want to emphasize what I have just said by reporting two or three cases.

No. 1.—Bank clerk, came to me with impotence, with the statement that he had never had a proper erection in his life; that he had been under medicine, and under urging in the way of becoming self confident, etc., attempted to demonstrate to himself his manhood. He had completely failed in this, and stated that he absolutely never had any venereal connection with any woman; that he had an abundance of opportunities in this direction, but had never been able to have a normal erection. I made an examination of his urethra, and about 1½ inches back I found a stricture that almost completely obstructed the passage. I was able after repeated attempts to introduce a very small bougie. After making a careful examination, I made the diagnosis of mechanical obstruction that I believed prevented the inflation of the blood vessels or the glans, and while I was not convinced that it was a stricture properly speaking, still I believed that there might be a cure in this case by the splitting of this obstruction. So I, with much difficulty, passed an Otis instrument, believing that the necessity of the case demanded it. After splitting the obstruction freely, I was able to pass a No. 32 curved sound without any difficulty, and afterward passed a No. 32 straight sound. This operation was done three or four months ago, and he reports to me now that he can not only command an erection, but has also had satisfactory sexual congress. He is a very intelligent, rather intellectual, well developed young man, who has reached his twenty-sixth or twenty-eighth year, and had this trouble, which was probably due not to stricture, but to a neoplasm in the urethra. Of course the question of removing it by other means as a better surgical procedure, is one of considerable importance.

No. 2.—Some time ago a man came to me from an interior town, with a perineal fistula the result of a perineal operation for stricture of the urethra. The stricture which still existed, was promptlycut with

the Otis instrument, and as there was considerable shock following the operation, I gave the patient a drink of whiskey; he said to me "Doctor, you do not realize what you have done," and I replied that I realized I had cured him of a very serious trouble, as I believed that the fistula would close. He then remarked that he never took one drink of liquor without getting on a big spree. I told him that he would not get on a spree in this instance, and to be sure that he did not I took him to the train and saw him safely off toward home. He stopped at Lexington and went on a drunk for about a month; however the fistula closed and I understand he became entirely well.

No. 3.—Another case almost parallel with this as regards the nature of the stricture, was one that Drs. Roberts, Yandell and Rodman had been dilating for a year and perhaps more. The stricture could be dilated up to a 32 sound, and then in a very short time would contract again so close that it was almost absolutely impermeable. In this case the cutting operation was done without perineal section, and the man got well without any unfavorable symptoms at all.

No. 4.—The next case was one that Dr. Roberts also saw. A man who had a close stricture at about the bulbo-membraneous juncture, was taken down with a violent fever, and after recovering from the fever had a perineal abscess resulting in a permanent perineal fistula which some doctor in Indiana operated to close. When the patient came to me the perineum was gaping widely with some of the stitches still in situ. Two well marked strictures were found in the urethra, which were promply cut, and the fistula closed, the patient getting entirely well without further operation.

No. 5.—A fire insurance man, aged 74 years, came to me stating that he had had stricture of the urethra for over fifty years. A prominent homeopathic physician in the city told him that he had an enlarged prostate. An examination showed that he had a perfectly normal prostate, but had eight strictures of the urethra, one right back of the other. A careful examination of the urine revealed no disease of the kidneys, and no abnormal condition except the strictures. The patient had to rise frequently during the night, urinating at all times with extreme difficulty. The operation of urethrotomy was done without perineal section, and the man is now perfectly well. He is entirely cured with the exception that his expelling powers are not as great as they would be were he a younger man.

In regard to hemorrhage into the bladder in these cases, Keyes states if you have a clot in the bladder do not interfere with it. If there has been a clot in the bladder, or hemorrhage backward in any of the cases I have operated upon, I am not aware of it. I have simply reported these cases to prove, or to emphasize my firm belief that it is not necessary to put patients of this character in bed for two or three weeks, as will be the case if you open the perineum.

Now in the rapid progress of urethral surgery comes the question of the urethroscope. As the elder Otis was a firm advocate of the doctrine that all gleet was dependent upon stricture and all stricture called for the knife, so the younger Otis comes to the front with the most perfect urethroscope that has ever been devised. By means of it we are enabled to explore the urethral canal, and definitely locate any stricture or neoplasm, or any other conditions which may exist, that cannot be cured simply by internal urethrotomy. We all know what the experience has been in Louisville with the cystoscope; it has been previously expressed in this society that it is not the most reliable instrument in the world. I think, however, that the urethroscope will come into quite general use; without mentioning any names I may say that three or four of the prominent young men in this city, have been recently entirely cured of persistent urethral trouble by its means. By its use the exact location of the ulcer or inflammation can be determined, and the proper solution can be applied directly to that point. I think this fully demonstrates the fact that the improved Otis instrument is of value, not only in stricture, but in other conditions which we find in the urethra equally as serious as stricture.

She—Professor, did you ever read Martin Luther's commentary on the "Diet of Worms?"

The Professor—No, I have not. I am a strict vegetarian, you known.

SOCIETY REPORTS.

THE MEDICO-CHIRURGICAL SOCIETY, OF LOUISVILLE.

Stated Meeting, January 20th, 1893.

THE PRESIDENT, Dr. F. C. Simpson, in the Chair.

OVARIAN TUMOR.

DR. A. M. VANCE: The specimen I exhibit here is an ovarian polycyst and the other ovary removed from a maiden lady forty-two years old. The only point of interest is that her attention was never called to the tumor. It was discovered by her physician who was called on account of some pain during menstruation. The tumor contained a number of cysts and the cystic fluid was very thick. The whole operation was done in eighteen minutes.

BUBO.

DR. W. O. ROBERTS: Two years ago I saw a young man with a chancroid on the penis, which was followed by a bubo in the right groin, which, of course, went on to suppuration and was lanced. There was no further trouble until two weeks ago. Then he came to my office with an enlargement in the groin, which he said came on after pretty hard work at the store, in which he had done some heavy lifting; that he had felt some pain in the groin and that in a short time it began to swell. When he came to my office the enlargement was about the size of the first joint of my thumb, and quite tender. I put on a compress and bandage which he wore for ten days; but instead of improving the swelling continued to increase and, finally, I made a free incision into it and a considerable amount of pus escaped. The incision was very long—over two inches, and the suppuration seemed to be from around the gland instead of from the gland itself. I then put on an antiseptic poultice and bandage, continuing this treatment for three or four days; the gland seemed to increase in size and all the time the suppuration continued to come from around it, and I thought possibly I had not gotten into the gland. I then held it with a pair of forceps and cut through the centre, but no pus came away. I then put the patient under chloroform and removed the entire gland. I exhibit it here for your inspection; it is now very much shrunken from being in alcohol; it was dissected out with my fingers, leaving a very large cavity.

DISCUSSION.

DR. E. R. PALMER: I have read, in the last few days, a paper from one who wrote as if he thought he had discovered the only way to treat bubo with all its complications; and the only point he makes of any particular value, is that peri-adenitis is often antecedent to suppuration of the gland itself; and he advocates, instead of early opening, the very latest opening possible in order to allow of full destruction not only of the gland but of the connective tissue about it. And then he favors the trimming off, under chloroform, of the entire roof. This is the old operation and leaves a broad, wide and open ulcer which you can curette, clean and pack, treating so that it will be sure to granulate from the bottom, resulting as he says in a smooth and almost normal cicatrix.

We were promised a year ago by Dr. Francis Watson, of Boston, a paper on the treatment of bubo based upon his statements that the ideal treatment had never yet been formulated. But unfortunately he went abroad and the paper has never been read. And I must say, when it comes to making these enormous openings with a view to radical and speedy cure, that you leave the patient in such condition as will certainly cause him, throughout his entire after life, to conceal his person lest the exposure of this broad flat or depressed cicatrix will tell the story of his previous infection. I think it is a big question in treating these inguinal abscesses in young men, whether we shall give them a speedy cure by radical and rapid surgery that shall clean out everything, making a wide open sore, and leave them with a broad mark that will remain with them through life, or whether we should prolong the treatment for a few weeks, or perhaps several months, and finally get them well

with only the merest white line to mark the place where incision was made, the skin not having been removed, thus insuring in later life the precaution against exposure that may come. In treating young men for suppurating groins, we are bound to recognize a fact which we all know as doctors in middle life, that it is very important to have a man so that in later life he can throw off his clothes or go to sleep on a hot summer day with the possibility of his shirt getting above his groins, without exposing a great, broad, depressed cicatrix such as comes from these extensive operations. In my own work I am not afraid to do radical operations in the groins, and am perfectly willing to do them, but when a young man presents to me with glands of this sort, I nearly always procrastinate and work through small apertures, curetting through them, using peroxide and bichloride of mercury solutions, doing a great amount of hard, tedious work, extending over quite a period of time, with the simple idea that a few weeks or even a few months are nothing to a man if, in the end, he can be cured with such treatment and be in a presentable condition later on in life. Every married man, who has lived up to middle life, knows that a man is liable in his bath and in his domestic life to expose himself very generally, and I have seen cases where these glands were taken out, leaving a large scar which might have been avoided by proper treatment. Every one knows that by radical treatment in these cases, we are apt to get these big scars, and what is the best surgery from a purely surgical standpoint has not yet been fully determined to be the best practice. I am speaking largely not only with reference to the operation as performed by Dr. Roberts, but with reference to Dr. Rodman, both of whom operate extensively on the groin, and also with reference to the article which appeared in the journal mentioned. This man's idea is to simply first open and evacuate, then at the last moment making a large incision and with scissors trim off and take out the entire roof and make a large open sore that can be curetted, cleaned, disinfected and treated, with a resulting cicatrix which comes, of course, in a short period of time; this usually leaves a pale, hairless, depressed cicatrix which we ought to try and avoid in young men who have thirty or forty years of married life coming to them afterward.

Dr. C. Skinner: What per cent. of bubœs suppurate in your experience?

Dr. E. R. Palmer: Syphilitic bubo almost never suppurates; gonorrhœal do sometimes and virulent bubœs always. I have had patients where there was a patch as large as a dollar, of blue tissue which could be lifted up, and that you could get under with your curette or with your probe. Under this treatment advocated by the writer in the journal referred to, the operator would take a pair of scissors and trim off this entire flap with the view of getting an exposed ulcer which can be cleansed, disinfected and curetted. His idea being that the under surface of this diseased skin is filled with material that contains the bacteria of suppuration, which will keep infecting the tissues underneath. But I believe that this flap can be cleansed, and better results and less scar obtained by not trimming off the roof. By reversing your curette you can clean the entire under surface of the skin. I have done this in several instances until the skin was as thin almost as linen cloth. You can curette in this way and then cleanse by frequent washes of peroxide of hydrogen, followed with bichloride of mercury, then by a carefully adjusted compress with spica bandage, you can preserve this piece of skin and the wound will heal leaving only a very small cicatrix which cannot be discovered without close inspection. So far as the surgical treatment is concerned, it is a very easy matter to make a counter-opening, if necessary, and insert a drainage tube. I have sometimes found it necessary to do this. Frequently in cases that have previously had suppurating bubo, you will find ridges of considerable size left. It has been my experience that these ridges under constitutional treatment, under cod liver oil, under hydriodic acid and under a properly adjusted compress, can be gotten rid of. I believe that the treatment of this condition is a question that will be very largely discussed in the future.

Dr. A. M. Vance: Do you mean this talk to apply to glands where suppuration has already occurred before being seen by you?

Dr. E. R. Palmer: Yes, of course. I see comparatively few suppurating glands. It is perhaps remarkable that I see so few of them. A great many of the cases that apply to me have passed through the hands of other men.

Dr. A. M. Vance: In cases of chancroidal bubo without suppuration, do you practice prophylactic treatment of the gland?

Dr. E. R. Palmer: In chancroidal bubo I do not believe with the extirpation of the gland you can hope to remove all the infection. I believe that the lymphatics are involved to such extent that the enucleation of one enlarged gland will hardly remove the source of infection. In addition to the enlarged and infected gland there is, in nearly all cases, a peri-adenitis below and around the gland itself.

Dr. W. L. Rodman: I take issue entirely with Dr. Palmer as to the question of scarring. I think the bad scars he has seen must have been caused by the very practice he advocates. It is only very recently, and by a few surgeons, that these glands have been dissected out bodily. I think that the operation should be done not only to save time and get the man out as soon as you can, but for the very purpose of preventing scarring. If the operation is carefully done the scar left is so small as to be scarcely noticeable. I recalled three or four cases, while Dr. Palmer was speaking, upon which I have operated for enlarged glands (and I would like to have had the patients here to-night) where the wound was closed by deep as well as superficial sutures, and where union took place by first intention. In one case I found that suppuration had already taken place in the gland; it was carefully dissected out bodily, without infecting the wound which healed by first intention, and today I doubt if a scar could be seen. I operated upon a man at the city hospital, who had enormous glands in the groin, and there was union by first intention in the same way. The resident physician, Dr. Tomlin, operated upon the other side shortly afterward, the wound healing by first intention. In this case I doubt if today you can see a scar on either side. I would operate for the purpose of preventing scarring. The majority of these cases will go on to suppuration, and we cannot prevent scarring if we allow the tissues to break down themselves. If the glands are dissected out carefully and deep sutures inserted, there will be no trouble at all, and you will have no depressed cicatrix as you will have should they discharge spontaneously. I think every gentleman here will agree that where you find enlarged glands on the neck or face, and you are satisfied that they are going to break down, it would be very much better to make a small incision and dissect them out, in order to prevent suppuration and the formation of ugly, depressed cicatrices we so commonly see in patients treated by poultices and other expectant means.

Dr. E. R. Palmer: I suppose all men have curious experiences and, simply to emphasize that, I am going to say that I am treating a very large number of cases of gonorrhœa seven days in the week, and I do not think I can recollect, in eight years' practice, five cases of suppurative glands from gonorrhœa that have opened. I have had some pretty large glands in gonorrhœa that have eventually disappeared. I believe these very glands Dr. Rodman has opened and found pus in, had they been subjected to less radical treatment, would have disappeared.

I have a case under treatment now, a young man who had some femoral glands enlarged from gonorrhœa, that a doctor in the city, one of the regular members of the profession, diagnosticated as rupture and applied a truss for its relief. When the patient came to my office there were two or three openings leading up to a broad extensive sinus; the overlying tissues were very much diseased and blue in color; there was also a counter-opening communicating with this sinus that had been formed by the truss, In this case we removed the truss, dilated and curetted the infected portion of the tissues, injecting peroxide of hydrogen then bichloride of mercury and treated it with antiseptic agents. The patient is doing well, and I think will finally recover without any scar. I do not, in my work, see one case in a thousand where there are suppurating glands from gonorrhœa that need evacuation.

Dr. A. M. Cartledge: What do you consider the pathology of gonorrhœal bubo?

Dr. E. R. Palmer: You know the statement that Bumm made in regard to the child that died—that the cord was invaded by the gonococcus and that the gonorrhœa had followed the cord up. I do not exactly agree with Bumm concerning the pathology. I believe that bubo is caused by the germ of suppuration—at any rate I do not think the gonococcus does it. It must be the pyogenes—must be the pus bacterium that produces it.

Dr. A. M. Cartledge: You believe then, that suppuration which takes place

in the inguinal glands in gonorrhœa, is produced by the pus-forming micro-organisms?

Dr. E. R. Palmer: Yes. I do not think it is always necessary or advisable to open these enlarged glands, but by pressure and careful management you can reduce them without extirpation. I know it is very tempting, and it is a beautiful operation to go down into the groin and dissect out these glands, cleaning them out thoroughly, carefully stitching the wound, and allowing the patient to get out in a comparatively short time, but it has been my experience that, by this treatment, there will be more or less scar left as a result, which could be prevented by the treatment I have suggested. I have seen a great many cases of so-called tuberculous enlarged inguinal glands and believe they should be at first subjected to the same treatment.

I want to stand fairly and squarely as an advocate of conservatism in the treatment of enlarged glands. I have never yet seen a case of enlarged glands from gonorrhœa that needed extirpation.

Dr. C. Skinner: I desire to say that I want to stand just as fairly and squarely on the other side of the fence in regard to the treatment of bubo. I think the only plan is to enucleate these buboes as soon as they show any tendency whatever to suppurate or break down. I have been doing this now for some little time—promptly enucleating the enlarged glands at the first appearance of suppuration.

In regard to the scar, I want to mention one case to show the effect of an operation for removing a scar, and at the same time removing a suppurating gland. Some time ago a young lady came to me with a swelling on her neck, who in childhood had had a suppurating gland of the neck which had been opened leaving a very ugly scar and one so deep that she had great trouble in keeping it clean. This swelling occurred near the old scar. I told her that I believed the only thing to do was to make an incision, removing the suppurating gland and at the same time take away this troublesome scar. I did the operation, carefully removing the gland and the old cicatrix. The wound healed perfectly, leaving, at first, only a small line. This was several months ago, and to-day not the slightest scar can be seen.

Dr. A. M. Cartledge: First of all, I think it is impossible to treat all of these cases alike. We are all familiar with the different clinical characteristics of gonorrhœal bubo. Where I find surgical treatmeant necessary I have been in the habit of pinching these usually small abscesses up between my fingers and slitting them open. I do not see the necessity for making a large incision in gonorrhœal buboes, and I think they will get well better without it. I seldom make a larger incision than half inch. They are not especially infective, and with this small incision they get well without any perceptible scar. I believe the tendency to scarring is greater with a large incision, removing the gland. In regard to chancroidal and true virulent bubo, I believe I would agree with both sides and yet disagree with both sides in the discussion. I believe if the bubo has attained a considerable size, and you can demonstrate the existence of pus, it should be opened and the pus evacuated. But in doing this in a virulent bubo the wound is liable to become infected and thus prevent its healing. In such cases it may become necessary to remove the diseased glands.

Dr. O. W. Roberts: There are certain conditions of the glands of the groin that we know will go on to suppuration. Chancroidal bubo is one of them. Another is the tuberculous gland when it becomes very much enlarged. I believe with Dr. Rodman that the thing to do is to take them out and to do the operation before suppuration has taken place. If this is done we are almost certain to get primary union. Even if suppuration has taken place and you can remove the gland without infecting the wound with the pus microbe, you are almost sure to get union by first intention and there will be little or no scar. There are other conditions which give rise to these enlarged glands in the groin in which the inflammation can be relieved by properly applied bandage and pressure and which will not suppurate. My experience with gonorrhœal bubo is, if I see a case early and can have the patient wear a compress bandage that they do not suppurate. Where they are allowed to go on without treatment for a week or so, and the patient is "on the go" all the time, they generally suppurate. I rather believe that these gonorrhœal buboes are the result of simple irritation and not caused by the absorption of the pus microbe.

In regard to the opening of these en-

larged glands, I do not agree with Dr. Palmer or with Dr. Cartledge that a small incision is all that is necessary. My experience is that much better results can be obtained by making a free incision and removing all the enlarged glands than by simply making a small incision and trusting to peroxide of hydrogen injections.

CORRESPONDENCE.

THE COUNTRY PHYSICIAN.

Mr. Editor:—

The country doctor is a species of humanity *sui generis;* he is usually born in the country, and frequently begins to practice in the town of his birth. On this account, all other things being equal, he has almost innumerable difficulties to surmount. First, his youth is a serious objection; then his want of experience; and consequently the utter lack of popular confidence.

Time, however, soon makes him older, although he usually assumes all of the characteristics of age at once—raises a full beard and is sure to give his birthday at its extreme cycle of time. Time also brings him patients, and consequently the necessary amount of experience, and the first two objections being removed, he *develops* popular confidence. Now his troubles begin. At first the beauty of the study of medicine fascinated him, then the philanthropic desire to cure all disease was his daily and nightly ambition. But later, when the first glamor has disappeared and he finds that sickness brings out the very worst side of human nature, he clearly realizes the fact that his profession is after all only a means of gaining "bread and butter," and he settles down to hard, steady and weary work for life, or at the very least, for the best of his days.

From his constant intercourse with sickness and death, he soon becomes half philosopher and half fatalist; believing only that which he can clearly see; loth to accept the theory of any one upon any subject until he has an opportunity to verify it either medically, mathematically or by the conviction of his own conscience. Now here is one very palpable reason why so many country physicians never see the necessity of connecting themselves with a church organization; it is surely not because they are not as moral as their fellowmen, neither because they are not "good material," but from the very practice of their profession they are liable, too frequently, to lose faith in humanity, and are thus strongly tempted to doubt the goodness of God.

The country doctor is by no means a follower of Diogenes—the tenets of his profession teach him differently. His knowledge of anatomy alone, should be a firm and sure foundation for a belief in the existence of Deity, and he usually endeavors to follow the golden rule.

In regard to sympathy, let me say there is no class of men who have more real, genuine sympathy for the sick and suffering than the country doctors; he has perhaps known his patients from childhood and many of them are his best friends; much sympathy is frequently hidden by a seemingly indifferent exterior, as it would not be proper to allow it to run away with the judgment.

The doctor, as a rule, never fully shows his true feelings in the sick room; his face is seldom an index of much sympathy; but there is always a warm corner in the heart of every honest M. D. for every sufferer.

The country doctor plods his weary way through the storm and mud of winter; jogs over the dusty roads in the heat of summer; faces the most severe storms for hours at a time; digs his way through snow drifts; reels off the miles over dark and lonely roads, while the farmer sleeps in his warm bed; eats his meals irregularly; has no day of rest, and but precious little time to call his own. I have often thought if the same time and energy was devoted to any other branch of business, a man would accumulate a fortune in five years.

It is almost a wonder that at the age of forty a man engaged in active practice in the country has even the shadow of a constitution, or the slightest resemblance of an anatomy left.

Here is a sample of one day's work: called up at four o'clock a. m. to "pull a tooth;" sees patients in his office until nine o'clock; then a horse is ordered and he starts on his rounds. First he visits a case of typhoid fever; then sees a number of children with scarlet fever or diphtheria; other calls are left for him at the neighbors, and no one knows when he will be able to return—perhaps at dark, to eat a cold dinner. Then another horse is brought to the door, and he hurriedly goes to attend an accident where all of his surgical knowledge and skill are brought into play; he retires at midnight, and before another day appears, he is up and out to attend upon an errand of mercy, as the result of which, the next census shows a new name on the township roll. He begins the day as a dentist, acts as physician and surgeon and closes it as an obstetrician—four branches of medicine in one day.

You may amuse the doctor, but you can never surprise him, and he will be the first to detect any exaggeration. The doctor is a king in his own locality, and is the trusted adviser of hundreds of families; more than mere friendship binds him to the hearts of his patients; "he hears confessions, and keeps them safe, as a sacred trust, like a righteous priest." If he does not receive his reward here below, he is surely entitled to a large share of consideration in another sphere.

The country doctor almost always has a good stock of hard common sense, and some of the brightest lights in the medical world have been born and reared in some little country town.

No one has a better knowledge of human nature in all of its varied characteristics than the village doctor; he has the opportunity of seeing his fellow men in a natural condition; when sickness comes, concealment and deception are cast aside, and poor humanity is seen without the gloss of fashion, policy or self interest.

There are people who have their Sunday face, Sunday actions, Sunday walk, Sunday clothes and some even have their Sunday religion. But when pain and death comes, how natural it is to throw off all dissembling and appear just as we really are; it is then that we lose by comparison.

But humanity is not all satire. I have seen patients die in faith both the Protestant and the Catholic; have seen them meet death with a composure which surely indicated an abiding faith in God, and a belief that Heaven was better than earth.

To the rural practitioner is given an opportunity to enjoy and commune with nature; as he rides through wood and field in summer, he sees the various medicinal plants in bloom and recognizes them as old acquaintances; in the winter he enjoys the setting sun as it casts its shadows of red and blue over the artistically formed banks of snow which line the road, and extend far out in the wide spreading fields. During many a moonlight ride when the temperature was twenty degrees below zero, have I felt, as I dashed over the country in a sleigh, as though I owned the whole earth; the crisp air of a mid-winter night ride is truly exhilarating to both body and soul.

The city physician has a decided advantage over his country cousin. If there is a difficult case or an unusual operation, the city doctor has an abundance of assistants; but the country practitioner frequently performs many dangerous operations alone, or with some bystander as his assistant, and seeing one candle by the light of another. I have amputated the thigh at midnight, with only one miserably frightened girl to hold a lamp; have cut down upon a strangulated hernia without any one to even hold a light; have performed tracheotomy with only the mother of the child present to hold it upon her lap; have delivered women, tied the cord with a string from the window shade, cut it with my pen knife, and washed and dressed the infant—thus acting the part of both doctor and nurse.

The country physician is often obliged to fight disease single handed, when the city doctor has the satisfaction of verifying the aphorism, "in the multitude is safety."

All honor to my brother country doctors! They are indeed indispensable. And fortunate are they if, after having endeavored to be true to their profession themselves, it may be happily said of them

> "A life well spent whose early care it was,
> His riper years should not upbraid his green;
> By unperceived degrees he wears away,
> Yet, like the sun, seems larger at his setting."

JOHN C. HOLMES, M. D.
Cranbury, N. J.

THAT UNFORTUNATE "CONSERVATIVE."

EDITOR MED. AND SURG. REPORTER:

I am far from any desire to raise a controversy in your journal. Such a course would not be of benefit to the profession, to your journal, or to myself. However, I think I am entitled to note the criticism of Dr. Burr, in THE REPORTER for February 18th, entitled "The Advance Guard." It is a quiet, gentlemanly, sarcastic slap at my article in the REPORTER of Dec. 24, 1892, "The Conservative."

I think if the Doctor will look that article over again, he will fail to find a single line that intimates that the competent surgeon, of this or any other country, either specialist or general, is not entitled to all praise and commendation. I think he will fail to find a single objection to *any operation* when necessary. If carefully read it shows, I think, that it is the thinking conservative who makes the most brilliant advances.

Instead of quoting part of Webster's definition—(which he does) given in my article, let him keep all of it in mind. Particularly this—"one who preserves from ruin, injury; a preserver, a conserver." There is not a *good* surgeon but who does claim that his operation is called for by that definition. There is not a *good* physician but bases his treatment on that same definition.

That is what they are *here for*, and hence, according to Webster, all good doctors are conservatives.

But there is another class who are eternally whacking at the conservative as, —as I said,—"a chump, a back number, etc." Waiting one day on a long, slow confinement with no particular features about it, I put in the time reading in a journal one of these shots. Then and there, I wrote the article in what I fondly dreamed was a 'serio-comic' vein. Well! I am either lost on the 'serio-comic,' or my critic Dr. Burr, can't locate the vein.

He quotes from my article this, "the conservative is the fellow who wants to know before he acts." Then adds this—"To reach which point of vantage, one must indeed be a very Solon or phenomenon of learning, or else manifest a large part of his time, a position of imposing masterly inactivity." Now after that, will the Doctor kindly pick up his MEDICAL AND SURGICAL REPORTER of December 31st, and on page 1035, read this from Dr. Jos. Price's article, viz.: "To the inquiry 'who should do abdominal work?' there can be but one answer—the one who has served an *apprenticeship* and *who knows where, when and how.*" Now again, will the Doctor please glance down his own article and read what he, approving, quotes from "Our Philadelphia confrere," viz.: "It is not so much a ponderous dignity and sick room air that we need, but to *know what to do, when to do it and how to do it;*" and then ask himself if there is *any difference* between himself, Dr. Price and my poor "'conservative' who wants to know before he acts." Fact is most of us "want to know" sometimes, more than we can ever know, viz., the certain result of executing what we do know.

Again the Doctor quotes disapprovingly "The conservative is the man who has seen many (old) theories die out, etc., new theories wither, etc. "Well! that's perfectly true, not only as regards medical science, but every other science. Fact is, that statement is very commonplace and has nothing startling about it.

The Doctor says "Medical science originally was a system of baseless theories, bolstered up with spacious reasoning and unintelligible vocabulary." If my critic was an "original" Homeopath, one could possibly understand that position. I think, however, that ever since "Medical Science" could be called a science, the theories of the day were not baseless to the practitioner of the time. Baseless to us possibly, but he was as good as his day and generation and as true to his art, according to his light, as we are.

He erred from lack of a then impossible knowledge, and we learn from his mistakes as we do from our own; and yet,—Glory to his memory! Many of his theories and reasonings still abide with us, to bless and comfort us.

I quote from the annual address of Dr. Clark, president of the Boston Gynecological Society: "In certain cases of sudden occurrence of injury Hippocrates admitted that the spine might be rectified; he rather praises the principle, though he says succussion was chiefly practiced by those physicians who seek to astonish the

mob. To such persons, he says, these practices appear wonderful; people always extol such practices and never give themselves any concern as to the final results." From this it would appear that the old medical saint had been after the 'Radicals' in his day.

My friend writes—"The day is at hand, and even now is, when in place of that, we shall have an *exact science* (italics mine) and an intelligible reason for all things."

At this point I shall have to turn our friend over to you, Mr. Editor, for, on page 823, REPORTER of Nov. 19, you say—"Medicine has not reached the point of an *exact* science, and never will," and I am afraid you are a true prophet.

Dear Dr. Burr—"Shake!" It was all meant for the best, and largely in fun. "The Advance Guard" kept right along after reading it, or possibly took the "Conservative" along for company, and not one of them ever dreamed of accusing me of stabbing *him* under the fifth rib. "Shake" again. Very truly,

S. S. TOWLER, M. D.

Marienville, Pa.

NEW YORK LETTER.*

At his weekly clinical lecture in Bellevue Hospital a few days ago, Prof. Samuel Alexander exhibited a young man who had a primary syphilitic lesion on his penis. The eruption had not yet appeared, hence the only treatment that was prescribed was an antiseptic solution with which to keep the parts clean, and calomel to be dusted on the sore twice a day. Although it was a typical chancre appearing three weeks after intercourse, with its indurated borders and enlarged inguinal glands, no antisyphilitic treatment was given, the professor claiming that it is impossible to positively diagnose syphilis previous to the appearance of the eruption.

In regard to the modern fad for checking syphilis by excising the chancre as soon as it appears, which is extensively practiced in Europe, Dr. Alexander made some rather forcible remarks. He said that, as it is impossible to conclusively diagnose syphilis previous to the breaking out of the eruption, doubtless the brilliant results reported by those genito-urinary surgeons who practiced extirpation, were due to an error in the diagnosis. Although 'tis claimed by many that syphilis is early a local disease, and that by removal of the primary focus the subsequent constitutional disease will be avoided, 'tis not true, for syphilis is a constitutional disease from the first. A reference was made to the case of Barclay Hill, in London; a man came to the doctor two hours after an intercourse in which he lacerated the frænum; he ascertained before leaving the woman that she had syphilis. Barclay Hill washed the wound with an antiseptic solution and thoroughly cauterized it with nitrate of silver; the patient went on his way rejoicing, suffering only from the effects of the caustic. But in three weeks a luxuriant syphilitic eruption appeared.

Dr. Alexander has excised a great many chancres and at a time when all was favorable, the operation having been done early, previous to any inguinal enlargement and with a healthy zone of tissue around the sore, and in no case has he succeeded in preventing the constitutional syphilis.

The operation is justifiable in the case of a married man if the sore is outside on the prepuce and has a healthy zone of tissue around it. He is thus protected from infecting his wife, but the constitutional symptoms will appear as if no excision had been done.

***

At an autopsy in the morgue, recently held on the patient who was supposed to have tuberculous pleurisy, there was found to be a multiple endothelioma in the pleura. During his illness the patient had been tapped eighteen times and at each operation from one to three quarts of bloody fluid was withdrawn from the pleural cavity. The hemorrhagic nature of the fluid suggested either tuberculosis or cancer.

There is but little known of the en-

*Special Correspondent to THE MEDICAL AND SURGICAL REPORTER.

dotheliomata and but few cases of it have been reported. There is no mention of it made in text-books on pathology. These neoplasms seem to occupy the borderland between sarcoma and carcinoma. Their habitat is in the serous membranes. When found in the arachnoid their structure is that of the sarcomata, and when in the pleura nests of cells are surrounded by fibrous stroma, thus resembling carcinomata.

In the pleura of the patient mentioned above, a large number of firm, white, nodular masses were found, the pleura between the tumorous growths being nearly an inch thick. They had been of rapid growth, and seemed to partake of the nature of an inflammatory growth more than that of a neoplasm. The pleura of the affected part, as well as the growths themselves, cut like gristle, and from the cut surface a colloid fluid resembling blood exuded. The cells were large and flattened, resembling endothelial cells.

This form of tumor is very malignant and, attacking, as it does, the tunica vaginalis, peritoneum and other serous membranes, is difficult to diagnose or to treat. No doubt this difficulty of diagnosis accounts for the very few cases that have been reported. As more is learned about this form of tumor it will take a prominent place among the malignant growths with which we so frequently come in contact.

***

At a recent meeting of the Section on Surgery at the Academy of Medicine, Professor W. B. Coley read a paper and presented photographs and patients illustrative of the success obtained in the treatment of malignant growths by inoculating the patients with the virus of erysipelas. He had been actuated to test this method of treatment by observing a patient, who had been operated upon several times for the removal of a cancer which returned after each operation, gaining perfect recovery after having accidentally contracted erysipelas. This was seven years ago and there has been no return of the tumor. The next patient in whom he had tried the treatment was a man with a large sarcoma of the neck which had been operated upon without success. Dr. Coley injected erysipelas buoillon-cultures into the tumor a couple of times; it soon wasted away and there has been no return. He has studied this method of treatment in thirty-four cases, seventeen of which had carcinoma and the remainder sarcoma. Three of the cases of carcinoma and seven of the sarcoma permanently recovered. Of the remainder all showed marked improvement except one who died accidentally, and another who died as a result of the erysipelas.

Dr. Coley explained the good results obtained as due to an antagonistic bacteriological action, and that its effects were constitutional, as growths in parts distant from the place where the virus was injected disappeared.

In the discussion which followed Dr. Bull said that he could confirm the report of the case presented by Dr. Coley. He thought, however, that this plan of treatment had its dangers and was far from perfect, but that it might prove a valuable adjunct to surgical procedure.

Dr. Daniel Lewis thought that erysipelas acted by its local irritative and destructive effects, the same as preparations of arsenic and other caustics; and that the efficacy of this plan of treatment should be more extensively tested before it could be generally adopted.

Dr. John A. Wyeth thought that the specific germ of erysipelas might have a peculiar influence on malignant growths, but that other kinds of inflammatory action often effect a cure. He spoke of one of his patients who had a sarcoma of the abdominal wall which was too large to remove, in whom a complete cure was obtained by injecting arsenious acid into and around the growth. Microscopical examinations by prominent pathologists conclusively proved the tumor to be a true sarcoma. This was done seven years ago and there has been no return.

Dr. Coley concluded the discussion by saying that erysipelas could not effect its results by local irritative influence, as in one of his cases a malignant tumor in the vagina, far from the seat of injection, had been cured. As he had tested it in seventeen cases of inoperable sarcoma, and obtained seven cures, he thought the sooner the public knew of it the better.

Hydrochlorate of apomorphine is now said to be the agent responsible for all the ill-effects of the Keeley "bi-chloride of gold" cure.

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SATURDAY, MARCH 4TH, 1893.

EDITORIAL.

GYNECOLOGY AMONG THE INSANE FROM ANOTHER POINT OF VIEW.

Whatever motive may have inspired the action of the State Board of Public Charities to condemn and interdict in a most sensational and public manner, the use of surgical methods of relief among the inmates of the female department of the State Asylum at Norristown, the folly of its haste is daily becoming more apparent. Whether it was done to influence proposed legislative abridgment of its powers, or whether some unworthier animus impelled, does not particularly concern the present question, save that it goes far to show the desirability of abolishing the Board or, at least, limiting its duties to matters within its understanding—which is equivalent to abolition.

While to the general public the report furnished a passing sensation and an opportunity to add another to the long list of imaginary horrors and abuses practised by the medical profession upon defenseless subjects, to the Profession it offered several questions of profound importance. The incident has been commented upon by many professional journals, generally from the point of view of the State Board, and consequently with the same amount of information and judgment.

THE REPORTER has from the start sustained the action of the physician-in-charge in treating the patients as her best judgment, backed by the best opinions she could obtain, dictated.

THE REPORTER presents without further comment than its full endorsement, the reply of the Board of Trustees of the Norristown Asylum to the State Board of Public Charities. The reply, carrying with it a stinging rebuke to the meddlesome exercise of questionable authority, includes the report to the Trustees by Dr. Bennett, giving a full record of each case. Dr. Bennett's summary is the best presentation of the subject yet offered, and deserves the closest attention of the entire profession.

STATE HOSPITAL FOR THE INSANE,
S. E. District of Pa.

NORRISTOWN, February 3d, 1893.

To the Board of Public Charities,
State of Pennsylvania.

GENTLEMEN: At the first meeting of the Board of Trustees of this Hospital

after the receipt of your communication of December 10th, 1892, the Chief Physician of the Department for Women was directed to furnish a detailed report of the surgical operations alleged by you to have been performed in this Hospital for the cure of insanity.

We submit, herewith, her report upon six cases, the only operations of the kind ever performed in this Hospital.

You will see that, in this case, the operation was performed as the best judgment of the Medical Staff, to relieve suffering and to remove organs so much diseased as to no longer perform their functions; the question of sanity or insanity not being considered, insanity being regarded as a symptom and not a disease.

This Board has exercised great care and deliberation in the selection of its Medical Staff and, on purely medical matters, it does not profess to interfere with the judgment of the physicians in charge, believing that they have all the opportunities for judging correctly of the necessities of each case and the proper mode of relief.

If your committee will express to this Board its want of faith in either the skill or judgment of any of the Medical Staff, we shall give the matter immediate attention.

In connection with this matter, we would state that Dr. Morton, chairman of your Committee on Lunacy, was fully cognizant of the facts, as will be seen by the following letter from him to Dr. Bennett, congratulating her upon the success of one of the operations performed in July, 1892, which was long prior to your communication to this Board.

(*Copy of Dr. Morton's Letter.*)

DR. MORTON,

1421 CHESTNUT ST., PHILADELPHIA.

Dear Doctor:

I thank you for the opportunity for examining ———. She looks and seems perfectly well and I congratulate you upon the result. Sincerely,

THOMAS G. MORTON.

DR. BENNETT.

We certainly think that, after such an indorsement, it is unfair for your Board, arbitrarily, without notice and without an investigation for each case, to charge that our work was experimental, and we know that the term used by your Board in calling these operations "Removal of Ovaries as a Cure for Insanity" was not warranted by the facts.

So far as the opinion of your legal member, Mr. Barlow, is concerned, being based upon wrong premises, it has no bearing upon the matter.

A careful examination of all the facts warrants the Board of Trustees in concluding that the operations were in the interests of humanity. The report of your Committee is evidently based upon a misapprehension of the facts, and we cannot withhold the expression of our regret that your Honorable Board has, without due investigation, not only judged and condemned our work, but that it has also thought proper to give wide publicity to a judgment based upon unwarranted assumptions.

We, therefore, respectfully ask that you will reconsider the resolution directed to this Board.

Very respectfully yours,

C. H. STINSON, GEORGE ROSS,
ELLWOOD M. CORSON W. D. H. SERRILL,
EDWIN G. MARTIN, JOSEPH THOMAS,
ISAAC ACKER, J. M. HACKETT,
WM. J. ELLIOTT, SAM. S. THOMPSON,
BARTON D. EVANS, JOHN T. DYER.

(*Report presented to Board of Trustees, Feb. 3, 1893.*)

STATE HOSPITAL, DEPT. FOR WOMEN,
February 2d, 1893.

To the Board of Trustees.

GENTLEMEN: In obedience to your request, I beg leave to present the following condensed histories of the six cases in this department which have been the subjects of ovarian operations.

CASE 1.—Age, 49 years; American; married; mother of four children, of which the youngest is 18 years of age. The first attack of mania followed the birth of her first child, 29 years ago. The present attack is the fifth and came on about two months before her admission to the Hospital, May 24th, 1892.

Mental Condition: Mania of a mild type with delusions.

Physical Condition: General debility with anæmia, small amount of albumen and mucous casts in the urine.

Internal Examination showed uterus retroflexed and drawn to left side. The attacks of insanity had always been preceded by periods of severe pain in the region of the left ovary.

Operations done July 3rd, 1892, by Dr. Marie B. Werner assisted by Dr. Joseph Price; there were present Dr. L. McMurtry, of Louisville, Kentucky; Drs. Kollock and McAllister, of Philadelphia; Drs. Bennett, Taber, Willits and Lothrop, of the Hospital Staff.

Both ovaries and tubes were removed by abdominal section.

Condition of Organs Removed: Left ovary and tube contained many small cystic tumors. Right ovary cirrhotic, with calcareous deposits; tuberculous degeneration of left tube.

Result: Patient recovered rapidly from the operation, and she went home completely restored in body and mind on the 6th of August, a little more than four weeks after the operation.

Case 2.—Age, 28 years; American; white; single; apparent family predisposition to insanity. Patient had lived an irregular life, and was said to have suffered from internal trouble, dating from an abortion produced five years before. Admitted to Hospital, August 28th, 1888.

Mental Condition: Melancholia, with stupor, for the first year; for the following three years, lucid intervals, alternating with periods of violent maniacal excitement, during which she became profane, obscene, destructive and suicidal.

Physical Condition: General condition poor on admission; urine contained albumen and hyaline casts.

Internal Examination showed uterus prolapsed, enlarged and fixed; profuse secretion; masses felt in region of both ovaries, sensitive to pressure. Much localized pain suffered at times. No permanent improvement followed local treatment.

Operation done at same time with Case 1.

Ovaries and tubes on both sides removed by abdominal section.

Condition of Organs Removed: Hydrosalpinx of both sides. Adhesions of extraordinary firmness, roofing in the pelvis and binding tubes, ovaries and adjacent tissues in one mass, of which the parts were almost indistinguishable.

Result: Recovered rapidly and went home well physically and mentally, on the 17th of September, 1892.

Note: This patient was subsequently examined by Dr. Morton, who wrote to congratulate me upon the result.

The patient, herself, wrote October 12th: "I have not any of my old pain, and I think the operation I passed through has improved my health ten-fold. I feel as though I could not thank you enough for your kindness."

Case 3.—Age, 24 years; married; admitted July 5th, 1892.

Eight months before admission, being then in the fourth month of pregnancy, she fell to the floor in convulsions, which lasted four hours; these were followed by some impairment of mind and occasional fits, premature delivery was induced two months later, without much benefit. From February to June she was in the "Friends' Asylum."

Mental Condition: Periods of maniacal excitement with delusions, alternating with longer intervals during which she was almost, if not entirely, well. Had five epileptic fits during the months of July, August and September,

Physical Condition: General condition fairly good.

Internal Examination showed right ovary prolapsed and enlarged; acute pain on pressure; mass felt on left side and in posterior cul-de-sac.

Operation done on October 13th, 1892, by Dr. Joseph Price, assisted by Dr. Willits and Dr. Bricker. There were present Drs. E. M. Corson, and S. N. Wiley, of Norristown; Drs. Bennett, Taber, Lothrop and Wilmarth, of the Hospital Staff.

Ovaries and tubes of both sides were removed by abdominal section.

Condition of Organs Removed: Both right and left ovaries contained numerous small cysts. Right ovary also contained a larger cyst, the size of a walnut.

Result: Rapid recovery from operation. No fits since October. Mental condition about as before.

Case 4.—Age, 17; American; white; single; admitted April 12, 1892.

History not very definitely obtained, but mind probably affected for some months preceding. Father thinks that she was never the same after baptism by immersion, the preceding summer. She had left her home and otherwise acted peculiarly.

Mental Condition: Mania, with delusions; at times much excited and destructive, principal delusion that she was pregnant. Improved and went home, on trial, August 18th; returned September 16th, in a condition of stuporous melancholia; had to be carried into the ward in her father's arms; required to be fed and cared for like an infant; slight improvement during the following month.

Physical Condition: General condition poor; but improved under tonics. Urine contained traces of albumen.

Internal Examination: Uterus retroflexed and fixed. Excessive tenderness on both sides; regular local treatment produced little, if any effect. Menstruation painful and scanty.

Operation done at same time with Case 3.

Both ovaries and tubes removed by abdominal section.

Condition of Organs Removed: Ovaries cystic. Both ovaries and uterus in a singularly undeveloped condition, the former apparently devoid of ordinary ovarian tissue. It was the opinion of Dr. Price that these rudimentary organs could never have performed the functions pertaining to them, and it is reasonable to suppose that the periodic struggles of nature to perform functions, to which these undeveloped organs were inadequate, produced profound disturbance of the nervous system.

Result: Recovered promptly from the operation and went home well, physically and mentally, November 16th.

The change in this patient was very remarkable, and observed by all about her. Not only was there a marked improvement and development of her physical system, but, mentally and morally, there was a striking change for the better. Her father writes January 25th: "If you would see her, and see how she helps about, you would think that she had never been sick." The patient, herself, writes February 1st: "Indeed I will never forget your kindness in getting me so well as I am, and thank you so much for what you have done for me."

Case 5.—Age 36; American; white; married; had attack of mild melancholia, following the birth of her

first child, four years before, from which she recovered in this Hospital. Present attack came on one week after the birth of the second child. Admitted to the Hospital December 4th, 1888.

Mental Condition: Attacks of violent mania, alternating with about equal periods of a more quiet condition. The violence of maniacal attacks increased during the four years, until she came to be considered the most dangerous patient in our violent wards. The excited periods became a sort of frenzy; she was not only a wild, destructive and aggressive, but also very suicidal.

Physical Condition: General condition fairly good; urine at times contained albumen and casts.

Internal Examination: Laceration of cervix uteri, bilateral; left ovary acutely painful on pressure, and ligament on that side shortened. Subject to periodical, exhausting hemorrhages.

Operation done Oct. 23d, 1892, by Dr. Joseph Price assisted by Dr. Willits and Dr. Bricker. There were present Drs. E. M. Corson and S. N. Wiley, of Norristown; Dr. Katherine Kollock, of Philadelphia; Drs. Little and Mayo, of Minnesota; Dr. Parker, of Indiana; Dr. Jennings, of Virginia; and the entire Hospital Staff.

Ovaries and tubes of both sides were removed by abdominal section.

Condition of Organs Removed: Cystoma, the size of a hen's egg, in both right and left ovaries; ovaries otherwise cystic.

Result: Patient made a slow recovery from the operation, on account of suppuration around the stitches; transferred from the farm-cottage to ward, November 25th. Mental condition very greatly improved and [Feb. 2d,] still improving, has no violent attacks, takes an interest in all around her and helps constantly in the work of the ward; disposition amiable and seems happy. I think it possible that this patient may entirely recover, notwithstanding the long duration which is always an unfavorable element.

Case 6.—Admitted to Hospital, September 9th, 1886. Age, on admission, 40; Irish; mother of seven children, of which the youngest was three months old; seven weeks after the birth of this child, became violently insane.

Mental Condition: On admission, melancholia, with periods of frenzy. With improved general health her mental condition also improved so that, for the last three years or more she was perfectly well, except during her periods of maniacal excitement which were coincident with the catamenia.

Physical Condition: On admission, generally poor, but improved under tonic treatment. Urine, at times, contained albumen and casts.

Internal Examination: Laceration of cervix uteri, bilateral; uterus not freely movable; thickening of left broad ligament and acute pain on pressure of left ovary.

Operation done at same time with Case 5.

Ovaries and tubes of both sides removed by abdominal section.

Condition of Organs Removed: Both ovaries cystic. Left ovary contained tumor the size of a walnut, which, in spite of the utmost care, ruptured during removal; Dr. Price was of the opinion that this tumor was liable to rupture, and discharge its contents into the abdominal cavity, at any time during life, and that its presence was thus a constant menace to life itself.

Result: Patient died on the sixth day of peritonitis.

To SUMMARIZE: Of six cases operated upon, three, or half the number, have perfectly recovered in body and mind. One is much improved. One is improved in some respects and not in others. One died.

It is of interest to note that five of the six, were of puerperal origin.

I want to emphasize the following facts:

(1) That cases were selected for operation only after thorough and searching examination, with consultation, often repeated.

(2) That each case selected for operation was the subject of serious bodily disease, such as may properly be, and habitually is, treated by surgical interference, quite apart from the insanity which is only an incident, or symptom, of such disease.

(3) That in every case of operation performed, the consent of the nearest relative, or guardian, of the patient was obtained.

(4) That no cases, other than those detailed above, have been at any time selected, or set apart, for operation.

Finally, I want to say that I believe that many cases now under our care, and others yet to come, might be saved from years of physical suffering, from hopeless dementia, even life itself might sometimes be saved, by appropriate surgical treatment. The study of Case 5, is to me inexpressibly sad. This unhappy woman should have been spared these four years of unspeakable suffering, and her complete restoration assured, by an earlier operation for the removal of organs diseased beyond the hope of recovery. I am conscious that my full duty toward her was not done.

In other and similar cases in the future I cannot reconcile it to my conscience to be merely a passive observer and recorder of their decline. If, in Pennsylvania, insanity is to be a barrier to the treatment of bodily diseases, it will be my duty to urge upon the guardians of these helpless ones, incapacitated for speaking on their own behalf, the necessity for taking their suffering charges, outside the state limits if need be, wherever they shall be free to receive the treatment adapted to their needs.

Very respectfully yours,

ALICE BENNETT.

TRANSLATIONS.

THE ABUSE OF MILK IN ALBUMINURICS.†

Lecorché and Talamon, (*La Médecine Moderne*, Jan. 14, 1893) dwell upon the abuse of milk in the management of albuminuria. According to them the treatment of albuminuria by the majority of physicians assumes a single and unchangeable form, namely, the milk diet. This forms in their minds a sort of algebraic formula, *albuminuria=milk*, the first term of which necessarily calls for the second. Every individual afflicted with albuminuria is, *à priori*, condemned by them to milk for the future. Without that no recovery and no treatment. They believe that they have done everything when, having found albumin in the urine, they prescribe without other procedures milk, only milk and always milk. True, milk is the medicine *par excellence* for nephritis, and its usefulness in albuminuria cannot be disputed. But it is a medicine which has its indications and its contra-indications as every other medicine, and it is as unreasonable to give milk to every individual who has albumin in his urine, as to prescribe digitalis to every person who presents a heart murmur.

The abuse of milk has for its basis the special idea emanating from the physiological axiom that milk is a perfect food. That milk is a food, and a perfect food, is granted, but the milk diet is not an alimentation. In other words, after the first infancy man is not constituted to live exclusively on milk. One liter of milk contains on an average 37 to 40 grammes of albuminoid material, 40 grammes of fat and 50 grammes of hydrocarbons. The daily ration of an adult being fixed at 125 or 130 grammes of nitrogenized principles, 100 grammes of fat and 300 grammes of hydrocarbons; it can be seen that if three liters of milk suffice to complete the sum of the nitrogenized and fatty principles, six will be necessary to furnish the sufficient quantity of hydrocarbons. In admitting that the considerably greater proportion of fat and albuminoids compensates for the deficit in the hydrocarbons, theoretically, therefore, four liters of milk daily should provide for the needs of the organism. What stomach is able to absorb indefinitely this quantity of milk without disgust and fatigue? Therefore, either the patient cannot take the necessary dose, or if he succeeds in obeying strictly the imposed prescriptions, the digestive tube revolts, and gastro-intestinal complications are produced. In two ways it tends to insufficient nutrition, general weakening and anemia. But to go further. Even suffering the daily dose to be tolerated and digested, is this dose actually equivalent to the ordinary ration of meat and vegetable foods? Milk debilitates. Look at a patient submitted for some time to an exclusive milk diet; his complexion is pale, his flesh is flabby, he is incapable of active cerebral work, and of all prolonged muscular effort. He has lost entirely his physical and moral energy. The chemical equilibrium is satisfied, but the vital equilibrium is not. Is it because the albumin of milk is different from the albumin provided by other nitrogenized materials? It is not known, but neither is it known why milk improves a vicious nutrition. This intimate action that is not known is without doubt the same in the two cases, favorable when the organism is surcharged with the products of an excessive fleshy alimentation, unfavorable when it is deprived for a long time of these same products. In fact, if the milk diet is a sufficient alimentation for a bedridden person, it is an insufficient alimentation for a healthy and active person. Now, three-fourths of the albuminurics are for months and years active patients whom we can have no reason for condemning to inaction. Therefore, when milk is prescribed for an albuminuric it is not as a food, but as a medicine and, therefore, as all drugs, its employment demands to be watched; given at the wrong time it may be useless or become dangerous.

In a general manner to order the milk diet in the period of remission of Bright's disease in albuminurics, who do not present other morbid conditions than the presence of albumin in the urine, when

†Translated for THE MEDICAL AND SURGICAL REPORTER, by W. A. N. Dorland, M. D.

the quantity of water is above the normal or even simply normal, when the solid constituents, urea, uric acid are in normal proportion, is unreasonable. If the hope is to cause the trace of albumin still shown by the urine to disappear it is vain. When the milk has quieted the acute irritation of the kidney, or re-established the circulatory activity of the organ when, by determining polyuria, it has prevented the dangers of accumulation in the blood of the principles which ought to be eliminated by the urinary secretions it has done all that it is able to do. If its usage is greatly prolonged the albuminuria cannot be made to disappear completely.

Surgery of the Biliary Passages.*

Dr. A. Frænkel made the following studies and observations during his service at the Rudolfinerhause, of Vienna. He first calls attention to the fact that it was Lauenstein, at the last Surgical Congress at Berlin, who first called attention to an apparently forgotten complication, i. e. adhesions at or around the region of the gall-bladder which frequently simulates biliary colic, and that the releasing of these adhesions will promote the cure. He cites two cases in which he assisted Prof. R. Gersuny, in which the previous histories had been exactly those of grave biliary colic, in which, however, no calculi were found, only various long bands of adhesions extending from the neighboring omentum to the region of the gall bladder. He emphasizes region of the gall-bladder since they found in each case a defect of the gall-bladder. One case was that of a colleague who had suffered for six years, from periodical attacks of colic, which presented the usual picture of that from gall-stones. There was but one symptom missing, namely, the retention of the gall in the gall-bladder which usually forms a palpable tumor at the border of the liver. A varying but not grave form of jaundice and a swelling of the liver of about three finger breadths was all that could be demonstrated by examination in both patients. Each case began with nausea and pain in the region of the stomach, extending later to the region of the liver. The attacks lasted usually from two to three hours, extending themselves latterly from twelve to fourteen hours in the case of the colleague. The second patient gave a history of having had the attacks last from twelve to fourteen days, and stated that he frequently had seen in his stools masses looking like black sand which had been declared by the physician in attendance to be small gall-stones. In neither case was it possible to find in any of the canals, a stone, while in one there was but a band which seemed to originate in the normal position of the gall-bladder. The second patient possessed a thin walled, translucent and not enlarged gall-bladder whose lower extremity was tightly adherent to the omentum which ended in a band-like prolongation behind the liver. The operation consisted in separating these adhesions and drawing the peritoneum over the stump with silk sutures. The result was in both cases satisfactory. The patients are free from pain and enjoying perfect health. The author wishes to refer the reader to the practical and important points these cases present—that Cholelithiasis can be produced through the residue of previous inflammatory processes, and which may probably have its origin in gall-stone troubles, and also through diseased processes called forth from affections in the region of the gall-bladder. He thinks that in grave cases referring to the gall system, even though a strict diagnosis cannot be made, an exploratory operation might be of great use. There is a further lesson which these operations present, that of covering all stumps as much as possible with peritoneum in order to prevent any adhesive complications following. This was very clearly shown in an address to the Surgical Congress by Winiwarker who presented a case in which he had to perform repeated sections after an ovariotomy, in order to cure severe colics which had their origin from such bands of adhesions.—*Central f. chirurg*, 1892.

Surgery of the Gall-Bladder.*

Dr. Carl Lauenstein, of Hamburg, says: At times the surgeon after making the incision finds the gall-bladder so contracted that it lies beneath the liver, making it impossible to see its outer margin. For such cases where it becomes necessary to

*Translated for The Medical and Surgical Reporter by Marie B. Werner, M. D.

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do the operation at one sitting, Riedel has proposed that the peritoneum should be loosened with or without the transverse fascia in the region of the abdominal wall, and its ends attached to the gall-bladder, forming in this way a funnel-shaped canal through which the contents of the gall-bladder can pass directly outward. This proposition of Riedel, which the author has been able to use in several instances is according to his views, of great importance in certain cases. He further states that among nineteen operative cases he found but two in which the contracted gall-bladder was so deeply situated that even following Riedel's method, it was impossible to prevent some of the gall or pus from entering the general cavity. In these cases the author found it useful to raise the large omentum over the transverse colon, drawing it at its free end to the gall-bladder, stitching it fast to its margins and in this way producing the canal for its safe passage. The author found in both cases a desirable result, which makes him feel it practicable to use the large omentum as plastic material for such purposes.—*Central. fur. Chirurg.*, 1893.

Three Cases of Cæsarean Section for Eclampsia.*

Wertheimer presents in his dissertation the importance of rapid delivery in antepartum eclampsia. In the early stages, however, while the os uteri is still closed and the cervix still intact, there has always been a difference of opinion. He feels he would follow the method of Halbertsma in particularly unfavorable cases of eclampsia in which immediate delivery is impossible, to produce relief by the Cæsarean section. He considers it necessary to study the number and intensity of the attacks, the gravity of the coma and the condition of the lungs, heart and kidneys, before deciding upon the latter mode of relief. He gives an account of three cases in which after careful application of all the above methods and a fruitless morphia narcosis, Cæsarean section was resorted to.

The immediate results in all three cases were good for both mother and child. In the first case, the mother succumbed to miliary tuberculosis after eleven days, and in the third case, the eighth-month child died on the third day. In opposition to Löhlein and v. Herff, who present as first consideration the Cæsarean section for a living child, W. would still like to see this method practised in cases where the death of the child has taken place, but in which there is no change for the better in the mother. In the sixteen operative cases up to the present time, ten mothers were saved. In closing W. mentions Dührssen's method, which consists of a bloody dilatation of the cervix, respectively a combination of the bloody with the mechanical dilatation, the last with the aid of a Colpeuryter. The latter method, the author concludes, to be more dangerous than the Cæsarean section, while the first is without doubt void of danger.—*Wertheimer, Wiener klin. Wochen,* 1892.

*Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

Some Observations upon Pathologico-Anatomical Changes in a Case of Tetanus Traumaticus.

T. Ventori, (*Central. f. Allgem. Pathology and path. Anatomy,* 1892.) In the case of a deceased man who had suffered from an injury to his right foot, after which followed tetanus, a pathological investigation showed the nerves of the hip intact but various degenerative changes in the lumbar region of the spinal cord, particularly at the roots of the spinal nerves which merge from the middle and lower portion of the lumbar enlargement. The columns of the spinal cord had met with but slight changes. Bonome found in two cases of traumatic tetanus the same conditions—the principal changes at one point or segment of the roots of the spinal nerves showing a strong line of demarkation, and which stood in some connection with the point of infection. In all other portions of the body the nervous system showed marked hyperæmia. Changes of lesser gravity in connection with the point of infection of the virus are also seen in the nerves and the segments of the spinal cord in cases of hydrophobia.

Ventori found in a case of hydrophobia, (following a bite in the right hand), a marked swelling of the throat and progressive degenerative changes in the spinal cord.

*Translated for Medical and Surgical Reporter, by Marie B. Werner, M. D.

ABSTRACTS.

RECURRENT EARACHE.

The necessity of finding the cause of recurrent earache which subsides without apparent injury to the ear. In writing on this subject Dr. Woods of Baltimore says:

No physician of considerable practice can have failed to have patients consult him on account of recurring earache. In some cases the pain comes in paroxysms of two or three hours' duration; disappears, sometimes spontaneously, sometimes only after the use of hot applications and anodynes; and returns after a long or short interval. Again, there are no distinct paroxysms of pain. The individual is conscious now and then that his ear hurts him. It never confines him to the house, and he may make only an incidental allusion to it when he happens to feel a pang, or thinks of the matter when with his physician. While by no means always so, the first class is usually made up of children, the second of adults. One will find, I think, that the subsequent histories of such cases divide them into three groups: (1) those who "outgrow," as it is called, the earache, or at any rate cease to have the attacks, and retain good hearing; (2) those who continue to have occasional paroxysms, or else now and then feel a twinge of pain, without the development of any special symptoms save a slight, and possible transient, defect in hearing; (3) those who after an attack of earache have a serous or purulent otorrhœa. This may subside and leave the ear still useful, but nevertheless impaired; or it may become chronic.

Thus earache may be a trival matter. Again, it may be a symptom of an inflammation, which will soon show itself by a discharge; or else be the only appreciable indication of conditions which can cause slow changes in the ear and lessen its usefulness. If the diagnosis "earache" be looked upon as good and sufficient, and therapeusis be limited to relieving the patient's suffering, *possibly* no harm will be done; but in the majority of cases important things will be overlooked, and harm will result.

Barring furuncular and diffuse inflammation of the external auditory canal, painful affections of the ear are due, usually, to catarrhal inflammation of the tpmpanic cavity, or to reflex neuralgia of the ear from some cause outside of the ear itself. Canal inflammation generally shows itself clear enough and need not be considered. Of catarrhal inflammation of the drum cavity, many cases pursue the typical course of hyperæmia of the tympanic mucosa, exudation into the drum cavity, perforation of the drumhead, and the establishment of an otorrhœa. Pain is the most prominent symptom of the stages of hyperæmia and exudation, and is relieved when the drumhead ruptures. But all cases do not go so far as perforation.

Tympanic hyperæmia may occur once or twice as the result of cold or exposure, and subside without serious results; but when it occurs again and again two things become manifest: (1) the usual results of repeated hyperæmia will probably ensue in the tympanic cavity, and (2) there must be some cause of these attacks more or less closely connected with the ear. That acute catarrh of the tympanum is the most common cause of the repeated earaches frequently observed in children, is the opinion of such authors as Woakes, Roosa and Buck; but the pain soon subsides, the hearing continues good, and nothing more is thought of the matter till the next attack. If more care were taken to make the tests, there is little doubt but that the hearing of ears which have passed through two or three such attacks would be found impaired. Still, as one can lose nearly one-half of the normal hearing power without being specially inconvenienced, the slow deterioration is not noticed for a long time.

Chronic abnormalties of the nasopharynx are a prolific cause to tympanic catarrh. Follicular pharyngitis, postnasal vegetations and hypertrophied tonsils are, in my experience, the most common throat lesions observed in connection with recurring earache. It is, I think, a more or less common belief that, if chronic follicular pharyngitis does not cause so much throat discomfort as to call attention

to itself, or if post-nasal adenoid vegetations do not interfere with nasal respiration, these troubles may be left alone. That they can produce deafness and recurring hyperæmia of the tympanum without special throat or nasal symptoms, I do not think admits of doubt. Situated, as they often are, near the pharyngeal mouths of the Eustachian tubes, these inflamed follicles or vegetations act as irritants, increase the vascularity of the tubes, and cause an Eustachian catarrh. This can reach the tympanum by direct continuity of mucous membrane. Again, as soon as ventilation of the tympanum through the Eustachians is hindered, and the air already in the tympanum has been absorbed—no renewal taking place through the tubes—atmospheric pressure in the external canal drives the drumhead inwards, producing undue pressure upon the ossicles. Impairment of hearing and tinnitus usually follow at once. If unrelieved, hyperæmia and pain follow. Relief comes as soon as the Eustachians again admit air to the drums. Inflation by Politzers's method promptly removes the ear symptoms, and the application of a nitrate of silver solution to the mouths of the tubes lessens the secondary catarrh; but it will surely return, unless the primary trouble is removed. As regards enlarged tonsils, their importance from an otological standpoint has been exaggerated. Probably they rarely occur unaccompanied by other morbid conditions of the throat, which more immediately affect the ear. By lessening the air-space, they may, indeed, produce these conditions. This will certainly be the case if they interfere with nasal respiration. The same is true, however, of any conditions which block the nostrils. Mouth-breathing is a well-known cause of pharyngeal disease, and when nasal respiration is impeded in persons suffering from ear symptoms, it should be re-established. Still, so far as the *direct* influence of hypertrophied tonsils upon the ear is concerned, Roosa states that it is doubtful if they ever enlarge to the extent of pressing upon the mouths of the tubes. He advises their removal upon the grounds I have advanced: that they may "affect the health of the pharynx." I have seen patients cured of middle ear disease by the removal of post-nasal vegetations, although hypertrophied tonsils were also present. Another source of danger to the ears from naso-pharyngeal disease is direct microbic invasion through the tubes. This undoubtedly occurs.

The teeth, and more particularly dentition, constitute a source of ear disease which is not sufficiently appreciated. The occurrence of otorrhœa in babies during dentition is frequently observed. Earache in infants, I am sure, is not always recognized as promptly as it should be. I see babies with otorrhœa whose clinical history is very clearly read backwards from the otorrhœa to dentition, but the pain the little one then had in the ear was not attributed to that organ.

Sexton, of New York, who has given the subject of oral irritation careful study, considers irritation from the mouth a most prolific cause of ear disease. He goes so far as to condemn amalgam fillings, vulcanite plates, and retention of teeth which have lost their nerve pulp, as dangerous to the integrity of the ears. I have tried to make some clinical observations upon this subject. While I have seen nothing to lead me to accept all Sexton says, I have over and over again seen earache, sometimes accompanied by hyperæmia of the drumhead and sometimes not, cured only after a carious tooth has been removed, or cleaned out and filled.

The channel of transmission from the teeth to the ears may be directly through the fibres of the fifth from the dental to the auriculo-temporal branch. This may be the case in those patients whose trouble is only *pain* of a reflex character, unaccompanied by inflammatory changes; but it will not explain the acute aural catarrh and suppurative otitis of dentition. Two explanations of these lesions are given: (1) extension of the inflammation from the gums to the middle ear by direct continuity of tissue. Roosa says he has seen this. Woakes, on the other hand, holds that the intermediate tissues are healthy, and offers, as an explanation of the tympanic catarrh, (2) vaso-motor disturbance.

Justifiable conclusions from the foregoing are, that the diagnosis in cases of recurrent earache must include the condition of the drumhead, pharynx, nose and teeth; that therapeusis must include the treatment of disease found in these structures.—*Maryland Med. Jour.*

Hahnemann's "Organon of Medicine" published the basis of homeopathy, 1810.

SURGICAL TREATMENT OF EPILEPSY.

Kümmell * reports ten cases, in which various operative measures were employed in the treatment of epilepsy, and reviews the various methods which have been suggested. He collects forty-five cases, where Alexander's operation of tying the vertebral arteries had been done. Eight of these gave distinctly good results; in eleven the condition improved; nineteen were not benefited, and in seventeen the result was unknown. To these, he reports two cases of his own in which the vertebrals were tied, first on one side and then on the other, but with only an extremely transitory result. In this operation the possibility has been suggested that all the fibres which pass from the superior ganglion of the sympathetic were cut off by the ligation, and hence Alexander himself has advised the removal of the superior cervical ganglion. This was done in one of Kümmell's cases, but here again the result was merely temporary, and after the operation of tying the vertebral and removing of the ganglion, the condition gradually grew worse. In four cases of epilepsy, where there was no history of previous trauma, and where the attack pointed to no special motor center in the cortex, he trephined over a tender spot in the skull. In these cases he found no perceptible changes at the point of trephining. The first two cases were materially improved; the second case was merely relieved of the tenderness; the fourth case, which presented more the features of petit mal, improved as to the psychical condition, although the attacks continued in a less severe form. Three cases presented distinct cortical epilepsy; in one, a portion of thickened dura was removed, and the patient had been for three and a half years without an attack; the second case presented spasm in the right arm and face, no physical changes were found in the brain except a possible projection in the inner portion of the skull; here no benefit was obtained, but the author regrets that a portion of the cortex was not also removed; a third case was of traumatic origin, and presented spasm in the right side of the face and the right arm; the thickened dura was removed, and the case has thus far continued well.

* Deutsche Med. Wochenschr., June 8, 1892.

Gerster and Sachs † report ten cases of epilepsy where trephining was performed, seven of which were truamatic, one due to hereditary disease, one a case of infantile cerebral hemiplegia, and one a case of non-traumatic localized epilepsy, due to early acute brain disease; one case showed great improvement; three, slight improvement, and one showed a little improvement immediately after the operation, but the attacks returned. In every case, however, the attacks recurred after a lapse of several months. Sachs claims that the excision of cortical tissue of the diseased area is not superior to the older method of simple trephining, though a focus of disease may be the actual case of epilepsy. Epilepsy, as a rule, does not manifest itself until widespread changes have appeared throughout the entire brain. If, therefore, we operate upon cases which have run a course of many years, removal of the initial focus of disease will have little effect upon the general sclerosis that has been established. He, therefore, suggests prompt surgical interference in all cases of injury to the skull where there is any reason to suppose that harm has been done to the brain, and also in those cases where a localized hemorrhage of traumatic origin, is more than likely to give rise to epilepsy; later on, excision of the cortex seems a questionable method. If patients could be promised a freedom from future attacks, excision might compensate for the paralysis caused by such excision, but such a promise can scarcely be given except in the most acute cases. Although the prospects for much benefit are gloomy, yet, considering the seriousness of epilepsy and the slight danger attending the opening of the skull, Sachs believes it the surgeon's duty in every case in which there is a shadow of doubt about the effect of an injury to the skull or brain, to trephine the skull and thus remove the cause of an epilepsy about to be developed.—*Bost. Med. and Surg. Jour.*

A Chicago Surprise.—Lakeside—So Winkle has lost his wife.

Whistler—Dear me! Who has got her?

Lakeside—Death.

† Amer. Med. Jour. of the Med. Sciences, November, 1892.

Exophthalmic Goitre.

P. J. Möbius, (*St. Petersburg Med. Wochenschrift*) has collected the main symptoms occurring in this disease from the widely distributed literature on the subject:

1. Examinations of the eyes shows exophthalmus, unusual space between the lids (Stellwag's sign), retardation in the movement of the upper lid (Graefe's sign) insufficiency of convergence, frequent paralysis of the ocular muscles of an intra-cerebral character, tremor of the eyelids and nystagmus.

2. Examination of the heart shows increase in frequency, systolic murmurs at base of heart, cardiac weakness and angina pectoris.

3. Enlargement of the thyroid gland may precede the other symptoms by years.

4. The skin shows diminished resistance to the electrical current (Vigoureaux), vitiligo, pigment spots, urticaria, a bronze coloration of the skin, redness, increased perspiration, loss of hair, and œdema of the lower half of the body.

5. Increase in the number of respirations, and cough; diminished distension of the chest after respiration, painless diarrhœa without a demonstrable cause, vomiting, boulimia, icterus, atony of the intestines and amenorrhœa.

6. Fever is observed in all stages of the disease; it may be ephemeral, remittent or intermittent; anæmia, and emaciation may be present.

7. The nervous symptoms are tremor, paraplegia, cramps, muscular atrophy, and disturbances of the mind.

8. The disease may be complicated with epilepsy, hysteria, paralysis agitans, glycosuria, polyuria, tabes, myxœdema, or syringomyelia.

9. Regarding the frequency of the individual symptoms, palpitation of the heart and swelling of the thyroid gland are never absent; pallor, emaciation, tremor, Stellwag's sign, and increased moisture of the skin are almost never absent; Graefe's sign, insomnia, and sensation of heat are frequent; pigmentation of the skin, diarrhœa, vomiting, insufficiency of convergence, and increase in the number of respirations, are often present. The disease is more frequently observed in females in the middle period of life. Etiologically, a neuropathic disposition is of the greatest importance; then follows rheumatism, influenza, climatic changes and traumatism. The course of the disease varies; remissions are frequent and cures questionable.

10. Pathological anatomy has disproven disease of the sympathetic as a cause of the affection. Superficial hemorrhages in the floor of the fourth ventricle have been observed in a few instances; there has also been observed enlargement of the thymus and lymph glands.

11. Therapeutically, besides such remedies as iron, arsenic, belladonna, bromide, etc., electricity, applications of water, and extirpation of the thyroid gland may be mentioned. Regarding the latter, Lemke says, "that patients with exophthalmic goitre belong not to the physician but to the surgeon." Möbius attributes the disease to a primary affection of the thyroid gland of toxic origin.

Medical Events.

Chloroform discovered by Guthrie of New York, 1831.

Pasteur's experiments in the line of germ culture, 1870-90.

The first naval hospital founded on the ship Dreadnaught, 1821.

The first grand international medical congress held at Paris, 1867.

Morphia discovered in opium by Senturuer; claimed by others, 1803.

Dr. Richard Bright published his researches on diseases of the kidneys, 1836.

Miss Garrett licensed in London to practice, the first female licensed doctor, 1865.

Vaccination made compulsory in England in 1853; in Ireland and Scotland in 1863.

The Bellevue Hospital, New York, founded and opened, with 800 beds for patients, 1826.

Vaccination generally practiced all over Europe. Anti-vaccination societies begun in 1816.

The ophthalmoscope invented by Helmholz. Revolution in treatment of eye disease in 1851.

Farraday's discovery of inductive electricity opened a new era in the history of medical electricty, 1831.

Lectures on medical jurisprudence first delivered in America at Columbia College by Dr. Stringham, 1804.—*Med. Bull.*

THE LIBRARY TABLE.

Manual of Bacteriology. By George M. Sternberg, M. D., Deputy Surgeon-General, U. S. Army; Director of the Hoagland Laboratory, Brooklyn, N. Y., etc. Pp. 886. William Wood & Co., N. Y.

The appearance of a masterly work on bacteriology from the pen of an eminent American scientist will be greeted with delight by all American students and physicians. This work comprises both manual and text book in which can be found a carefully written description of about four hundred species of bacteria, and a detailed account of the technique necessary in bacteriological investigations. The work, as would be expected, is largely a compilation, but it brings into accessible form the best results of bacteriological research that have been obtained especially by European investigators. Perhaps the severest criticism that can be made on this work is the omission of a reference to a large amount of excellent work that has been done in the various laboratories in America.

The subject matter is divided into four parts: The first part treats of the history, classification and morphology of bacteria together with the technique. The methods given are well selected and reasonably condensed. This part includes also a chapter on experiments with animals,and one on photographing bacteria. The second part contains thirteen chapters on general biological characters of bacteria, including an account of the action of antiseptics and gemicides. This chapter contains many valuable facts and is of special interest to physicians on account of its discussions of the ptomaines toxalbumins, etc. The third and fourth parts are devoted to pathogenic and saprophytic bacteria respectively. The descriptions and illustrations of the more important bacteria are quite elaborate, while the description of the non-pathogenic and partially described pathogenic forms are given in small type thus adding data while saving space. The bibliography is extensive and arranged under appropriate headings. Although the book is rather large it is as small as the subject would permit. If more could have been added with profit nothing could have been admitted without injury. The work deserves a careful perusal by all who are interested in bacteriology, hygiene and medicine.

Text Book of Nervous Diseases. By Charles L. Dana, A. M., M. D. With 210 illustrations. Pp. 524. New York: William Wood & Co., 1892.

The work before us is one well worthy of commendation, and as far as its limits will permit, represents in a condensed form the state of our knowledge of Diseases of the Nervous System. Sufficient space is devoted to the Anatomy and Physiology of the nervous system to make the information serviceable in the consideration of its various diseases.

The work is divided into five parts. Part I., which is subdivided into five chapters, gives a general description of the nervous system, its anatomy and diseases, including diagnosis and methods of examination, treatment, hygiene, etc.

Part II. gives the anatomy and diseases of the Cranial Nerves. Considerable care has been taken to present a clear general view of the diseases of the Optic Nerve and Centers, as well as the motor nerves of the eye. It is an encouraging sign of the times that books on nervous diseases, intended for the student and general practitioner, embrace fuller descriptions of the diseases of the nervous apparatus of the eye and its adnexa, than the older writers gave. The important part which anomalies of refraction, accommodation and ocular muscular equilibrium play in the causation of certain reflex nervous disorders is being more fully recognized, and it is pleasing to find in the present work so large an amount of intelligible and useful information upon this branch of the subject. The purely optical considerations are very properly left for special treatises. In our opinion the study of the eye and its diseases should not be entirely relegated to the ophthalmologist. As the standard of medical education is raised, we hope to find the general practitioner as well acquainted with the eye and the ophthalmoscope, as he is with the chest and the stethoscope. The ophthalmoscope in modern medicine is indispensable for purposes of diagnosis. How often the indications of cerebral and other diseases, previously unsuspected, have been revealed by an ophthalmoscopic examination of the fundus oculi.

Parts III. and IV. are devoted to the anatomy and diseases of the spinal cord and brain, and Part V. treats of functional nervous diseases.

It is evident that no pains have been spared to make a general knowledge of the subject of neurology as easy of acquirement as possible, and to this end many useful tables are scattered throughout the work. The author's style is smooth and clear. The printing is well executed. The 210 illustrations, some of which are colored, help greatly to elucidate the text.

Physiology. By Frederick A. Manning, M. D., Attending Surgeon, Manhattan Hospital, N. Y. Students Quiz Series. Series edited by Bern B. Gallaudet, M. D., Demonstrator of Anatomy, College of Physicians and Surgeons, New York; Visiting Surgeon Bellevue Hospital, New York. Philadelphia: Lea Bros. & Co. Price $1.00.

Of necessity, a quiz compend must follow beaten paths, and the volume under consideration is no exception to the rule. It is uniform with the other volumes of the series and arranged in the form of question and answer. In common with all such works it is useful only as a means of refreshing the

memory—as a text book it is worthless. The author claims no originality, having drawn on the works of Dalton, Foster and others. In an appendix, a table of the development of the embryo, modified from Gray's anatomy; a concise description of the chemical tests used in physiological analysis, and a comparison between the metric and English systems of measurement are arranged in such a way as to simplify the student's work.

CURRENT LITERATURE REVIEWED.

THE ANNALS OF GYNECOLOGY AND PÆDIATRY FOR FEBRUARY

contains an article by Dr. W. A. Briggs on the

Septic Origin and Antiseptic Treatment of Chronic Endometritis.

The causes of the disease are divided by the author into two divisions, active and passive. Besides infection no other active cause exists, all others—traumatism during abortion or parturition, the recumbent position during child bed, etc.—being passive. In the treatment the strictest antiseptic rules are to be enforced, even to the interdiction of sexual relations which may be a possible source of infection. Antiseptic douches are to be used twice daily, the author preferring to alternate the bichloride of mercury solution with a creolin solution on account of the danger of mercurial poisoning. The author is a firm believer in the efficacy of intra-uterine injections, using a solution of iodine and camphor in creosote. This, he thinks, is less apt to cause uterine colic than tincture of iodine, though he acknowledges that pain occasionally follows its use. Electricity he also considers a valuable agent in the treatment of endometritis, using the combined Faradic and Galvanic current when the uterine cavity is enlarged and the muscle flabby. In hypertrophic and hemorrhagic endometritis he advises the irrigating curette. Displacements, by causing stagnation of the circulation, aggravate the disease and should be corrected. Should the support of a tampon be necessary, he employs cotton soaked in glycerole of tannin.

Dr. O. B. Will in a paper on

Conservatism versus Radicalism in the Treatment of some Forms of Pelvic Diseases in women,

presents the non-operative side of the question. He justly attacks the men operating on any and the slightest indications, but at times the article becomes radical in its conservatism. "Diagnostic skill," he says, "is the first requirement and may be gained, in the majority of instances, without the assistance of ante-mortem or post-mortem dissection." Yet, he describes a case where he performed a laparotomy and ruptured a thin cyst of the ovary in a woman who had been treated for neuralgia of the ovary. Where did his diagnostic skill come from?—probably previous sections. Electricity is given a front rank in the treatment of pelvic troubles and he departs from the advice of Apostoli to withhold the electrode in the presence of pus, for he says "If after half a dozen *seances* there is developed no constantly increasing improvement—as evinced in lessened pain, tenderness and general irritability—I conclude upon further investigation into the probability of existing suppuration." Should not his first requirement, diagnostic skill, have been exercised earlier—before the application of an agent which all agree is most potent for harm in just this condition? Pyosalpinx is cured by catheterization of the tube and the injection of peroxide of hydrogen. "Daily or alternate-day applications of this character will soon put the parts in a healthy condition, pus or no pus." Should, however, both ends of the tube be closed and its walls distended with pus, then laparotomy is the only relief at the present time. As an example of conservatism "glued fast" the paper is an excellent one.

Dr. E. W. Cushing reports

Some rare forms of Myomata

removed by him. In one instance the ureters were found drawn up on the sides of the tumor. During the operation one ureter was cut, but the reporter was enabled to unite the severed ends by fine silk sutures. A urinary fistula resulted which promptly closed. The report is illustrated by excellent photographs of the tumors removed

Dr. Charles P. Noble contributes an article on "Vaginal Hysterectomy for Cancer," with report of four cases, which has already appeared in abstract on page 147 of THE MEDICAL AND SURGICAL REPORTER.

In the department of Pædiatry is an exhaustive paper on "The Diagnosis of the Meningitic Form of Enteric Fever in Children" by Dr. Georges Georgevitch, translated by Dr. Charles Greene Cumston. Typhoid fever in children is discussed and the similarity between tubercular meningitis and typhoid fever with pronounced brain symptoms pointed out. The differential diagnosis is considered and cases reported illustrating the various points under discussion.

THE MEDICAL BULLETIN

For February contains an article by Dr. John V. Shoemaker on

The Therapeutical Applications of Cocillana.

The chief use of the drug is in diseases of the respiratory tract, chiefly bronchitis, as it stimulates the capillary circulation of the bronchial mucous membrane, thus relieving inflammatory congestion. Cocillana may be administered in the form of the tincture or

fluid extract; though the author prefers the fluid extract, in doses of ten to twenty minims, combined with syrup. The paper includes the report of cases of bronchitis, influenza, hay fever and tuberculosis which were cured or relieved by the use of the drug.

Dr. John B. Brooke contributes a paper on

The Internal Use of Aristol

which he thinks saved the life of an infant suffering from entero-colitis. He administered the drug in ½ grain doses every two hours, combined with Dover's powder and sugar of milk. Since using it in the above case, which is reported in full in the paper, he has employed it with marked benefit in typhoid fever, dysentery and simple diarrhœa. He has not met with a case where the stomach would not tolerate it and advises its use especially where there is a muco-purulent discharge.

Dr. Edward C. Mann discusses the "Clinical Observation of Diseases of the Brain and Nervous System" in an article taken from the advance sheets of his work on Medical Jurisprudence. The question of localization of lesions of the brain and spinal cord is fully entered into,and the value of the ophthalmoscope in the diagnosis of diseases of the nervous system pointed out. The paper will be continued in the next issue of the journal.

Dr. J. Y. Hoffman reports a case of "Congenital Obstruction of the Bowels" where the post mortem revealed "an obstruction in the intestine about twenty-five inches from the pyloric orifice of the stomach, completely occluding the intestine. The mass was of a greenish blue color, of semi-solid consistency, adhesive in character." The intestine below was normal but had never been distended. A number of these masses were found but none occluded the intestine or were as firm in consistency as the first.

This number concludes with a clinical lecture by Dr. E. E. Montgomery on "Enucleation of Fibroids; Fibroid Tumors; Plastic Operation on the Pelvic floor; Vaginal Hysterectomy."

THE THERAPUTIC GAZETTE.

The February number contains seven original communications. "The Treatment of Acute Laryngo-Tracheitis" by Dr. Zeiss; "Salicylates in the Treatment of Pleurisy with Effusion" by Dr. Dock; "The Treatment of Incomplete Abortion" by Dr. Davis, are the more prominent articles. Dr. Kyle in a paper on

Resterilized Sponges, with Bacteriological Investigation,

states that the question of what is the best sponge to use in surgical operations still remains unsettled, some surgeons preferring the sponge, others the bichloride gauze. The sponges used in making this examination had been used in a septic case. They were resterilized by soaking twenty-four hours in bicarbonate of sodium solution, and then placed in carbolic acid solution (strength five per cent.) for one week. Some of the sponges were large and flat—elephant-ear sponges—while the others were thick and firm in the centre. Tubes were inoculated from each by taking from the outer layer of the sponge a small portion and placing this in the agar-agar tube; then cutting the sponge open, a small portion was taken from the centre.

The flat thin sponges showed no growth. With the thick sponges the experiment from the surface gave negative results; but from the thick, firm centers—from eight different inoculations, in from two to five days, at a temperature of 80° F.,—each showed marked growths. Stains made from these tubes showed numerous bacteria. By the process of isolation the micro-organisms of suppuration were found. The sponges were left in the carbolic acid solution for six weeks. Then inoculations made as before, gave practically the same results. The thick sponges were subjected to pressure while in the fluid, and inoculations made showed no change as to results. In making these experiments the same precautions were taken as would be necessary in any antiseptic or aseptic operation. The inoculating needles, forceps, scissors, etc., being sterilized in a steam sterilizer, and the experimenter's hands being prepared by soap, water and brush,—special attention being given to the cleansing of the nails—then washing in bichloride solution (1 to 1000). In each case satisfactory check experiments were made, which proved that the infection did not come from any want of antiseptic precautions during the experiments.

THE SEI-I-KWAI MEDICAL JOURNAL

Is edited and published by the Sei-i-Kwai, or Society for the Advancement of Medical Science in Japan. The December issue concontains three original articles in English and four in Japanese.

"Report on the Treatment of Ovarian Cysts" by Dr. Yoshida; "Sketch of the Process of Manufacturing Camphor in Japan;" "Immunity from Leprosy of the fifth generation and Non-Contagion" by Dr. Ashmead are the English articles.

It is interesting to learn from Dr. Ashmead's paper on

Immunity from Leprosy of the Fifth Generation

that there is a fact which bears very directly and very strongly upon the subject of the non-contagiousness of Leprosy. It is recognized by all Oriental leprologists that every child of a leper has an inheritance of the disease but diminished, and that after the fourth generation, if no healthy blood intervenes, the disease is entirely extinguished. There is about these matters a very interesting law in China and consequently in Japan, the latter being, in spite of its western civilization endeavors, much more submissive to Chinese traditions than to European ideas.

"No marriage with children of leprous parents is allowed. If leprosy appears in a family formerly clean, all betrothals and contracts of marriage previously entered into, are rescinded as a matter of course. Only when the betrothed or married persons suffer of the same degree and type of leprosy, for

instance, both of the fourth degree of generation, the alliance stands. Only equal degrees of age of the morbid cases are allowed to connect themselves by marriage. A leper of the fourth generation, even if he no longer shows any external marks of the disease, can only marry a woman of the same degree of age of the disease: their offspring is free from leprosy and no longer forbidden human intercourse."

Here we have then a perfect immunity acquired in four generations, and the fifth generation restores the health of the race. There is certainly a connection between this extinction of the disease and the present immunity of Europe when that part of the world had been a prey to leprosy during several centuries of the middle ages. Evidently in the West, simple isolation has unconsciously accomplished, in the lapse of time, what a rational legislation tries to bring about in the East. The legislation has probably preserved the populations of China, and of the East in general, from entire destruction. I do not mean to say that the rule is always and carefully adhered to, because, in that case, the disease would be extinct now: but the rule is sufficiently known, and sufficiently adhered to, to make its salutary consequences felt.

THE MEDICAL REPORTER.

The January issue of *The Medical Reporter of Calcutta* contains an interesting article on

The Treatment of Tuberculosis with Tuberculocidin.

Speaking of the preparation of Tuberculocidin Prof. Klebs states that it can be prepared in various ways, but it is a common feature of all methods that the substance precipitated from crude Tuberculin by platinum chloride and so-called alkaloidal re-agents, contains the injurious substances of the remedy, while the albumose, remaining under this treatment in solution, which can be thrown down and purified by alcohol, forms the remedial agent of the crude Tuberculin. This preparation brings about no disturbance in the evolution of heat by healthy animals, and is altogether free from the action on the heart which is peculiar to crude Tuberculin, as well as to the substances thrown down from it by platinic and other salts.

All these injurious effects, to which in human beings a long list of direct lesions of the nervous system have been added, are avoided by the application of the purified remedial albumose "Alexin" or Tuberculocidin. Very large doses of the latter, up to one-third grain *pro die* are of course followed by disturbances in many patients, specially manifested in a more or less troublesome feeling of weariness as well as in further emaciation in the earlier stages of the treatment; this, however, in favorable cases is made up later, and indeed, often gives place to a very evident gain of weight.

From this therefore it is seen, that Tuberculocidin though free from the dangerous by-effects of crude Tuberculin, can by no means be regarded as an indifferent substance. Further it is also clear that it is not merely a diluted Tuberculin: Tuberculocidin constitutes about 2½ per cent. of the crude Tuberculin, and if it were only a dilution of the latter, volumes of the two bearing the respective proportions to one another of 40: 1 should produce the same action. As the quantity of 1½ grain Tuberculocidin—attained after a few doses in tuberculous human beings—produces no fever, whilst crude Tuberculin in these subjects, in a dose of $\frac{1}{25}$ grain often brings about a very considerable rise of temperature as Dr. Robert Koch, among others, has established by alternate injection of the two substances, is clear that *the action of Tuberculocidin and Tuberculin is quite distinct.*

The article goes on to consider "The action upon the Tubercle Bacillus," etc., to be concluded in another issue.

Dr. Banerjee has a paper on "Ophiology or a description of the Snakes of India." "Topical Dysentery" by Dr. Day, and "Unique cases of Paresis" by Dr. Shah, of Junagadh, conclude this number.

THE PRACTITIONER.

The January issue contains an interesting paper by Dr. Wilks, on "The Value of Drugs." He calls attention to the uses of Iodide of Potassium, the Bromide of Potassium; Exophthalmic goitre, or Graves' disease, cured by Belladonna; the value of Arsenic in Idiopathic Anæmia, the care of Tuberculosis peritonitis and Dysentery and Chronic Diarrhœa. This paper contains no novelties; it is merely an expression by one, who has had a long experience, of his conviction of the value of drugs.

Dr. Duckworth has an article "On Some Matters Relating to Dietary for the Sick."

"Gout of the Intestines; its Pathology and Treatment" is offered by Dr. Haig. A continued article "Passive Congestion of the Lungs from Heart Failure" by Dr. Morison is concluded in this number.

"The Treatment of Myxodema" by Dr. McCall Anderson will be found quite instructive. The principle treatment consisted of the administration by the mouth of thyroid juice. Eighty minims (two-thirds of extract of one thyroid) was used. A fourth part of this was given on four consecutive days after which an interval of three days elapsed before any more was administered. Five days after the treatment was commenced showed marked improvement which continued on uninterrupted until at the end of four weeks, when the patient expressed the opinion that she was quite well. A set of photographs illustrating in a striking manner the change in the appearance of the patient accompany the article.

Acute Laryngitis in Children.

℞ Ammon. muriat..... grs. xvi.
Ext. prun. virg..... fl. ʒjss
Aq. menth. pip., q. s..... ad. ʒij

M. Sig.—Teaspoonful every two hours.

—*Lancet Clinic.*

PERISCOPE.

OBSTETRICS.

Measuring the Pelvic Outlet before Labour.

Tarnier (*Jour. des Sages-Femmes*, October 16th, 1892) recently gave a clinical demonstration respecting a case of dorso-lumbar kyphosis. The patient was hump-backed, the prominence being low down; in such cases the pelvis is nearly always transversely contracted, forming the funnel-shaped pelvis. In this patient the pelvic inlet was enlarged; measurement was very easy. On the other hand, the outlet was, as usual, very difficult to measure. No compass or pelvimeter gives precisely the distance between the tuberosities of the ischium. The best plan is to place the patient on her face with the nates raised. The obstetrician places his hands outside the tuberosities, the thumbs being pressed against those prominences. An assistant then measures the distance between the thumb-nails. It is normally $2\frac{3}{4}$ inches. In Tarnier's patient it was but 2 inches. With the aid of forceps labour was terminated without difficulty, and mother and child fared well.—*Br. Med. Jour.*

GYNECOLOGY.

The Frequency of Local Symptoms of Uterine Displacement.

Dr. Herman gave the results of some 407 observations made by him with the object of determining the relative frequency of the local symptoms associated with retroflexion or retroversion of the uterus. He discussed the two displacements together, no great importance attaching, in his opinion, to the distinction between them.

He found that *chronic pain* of some kind was present in nine-tenths of cases of backward displacement of the uterus. The most frequent seat of pain was the back, generally the sacral region. Next most often came sensations of descent, and uni-lateral pains, mostly in the ovarian region, cases of left-sided pain outnumbering those of right-sided pain in the proportion of three to one. In a short proportion lower abdominal pain was the chief complaint, and in a very small minority trouble in locomotion was the prominent symptom.

Pain in defecation was present in less than half the cases. In the majority of the cases in which it was present it was accounted for either by constipation or by morbid conditions of the rectum. The author estimates the proportion of cases of backward displacement of the uterus in which the displacement is the sole cause of painful defæcation at about one in nine.

Backward displacement of the uterus had no appreciable effect as a cause of *painful micturition*; but *bladder irritation* due solely to the displacement was present in about one case in five.

Leucorrhœa was not commoner in cases of backward displacement of the uterus than other patients.

Dyspareunia was present in at least one-sixth, and probably in a larger number; absent in at least one-seventh.—*Med. Weekly, Paris.*

NEWS AND MISCELLANY.

Another Four Year School.

The Woman's Medical College of Pennsylvania now requires all new matriculates to take four annual courses of graded instruction before being eligible for graduation. This is an evidence of the rapid progress made by the movement to elevate the standard of medical education.

American Surgical Association.

The preliminary programme for the meeting to be held at Buffalo, N. Y., May 30, 31, and June 1, 1893, is as follows:

President's Address.

1. The Modern Treatment of Compound Fractures. By Dr. Nicholas Senn, Chicago. Discussion by Drs. Roswell Park and F. S. Dennis.

2. Hypertrophies and Degenerations of Cicatrices and Cicatricial Tissue. By Dr. J. Collins Warren, Boston. Discussion by Drs. C. H. Mastin, G. R. Fowler and W. H. Carmalt.

3. Surgery of the Gall Bladder. By Dr. M. H. Richardson, Boston. Discussion by Drs. J. Ewing Mears, A. Vander Veer, W. H. Carmalt, and Theo. A. McGraw.

4. Surgery of the Rectum. By Dr. A. G. Gerster, New York. Discussion by Drs. L. S. Pilcher, H. H. Mudd, and L. McLane Tiffany.

5. Surgical Treatment of Cervical, Thoracic and Abdominal Aneurism. By Dr. C. B. Nancrede, Ann Arbor. Discussion.

6. Surgery of the Prostrate. By Dr. J. William White, Philadelphia. Discussion by Drs. Hunter McGuire, T. F. Hewitt, R. F. Weir, and F. H. Gerrish.

7. Treatment of Carbuncle. By Dr. F. Lange, New York. Discussion by Drs. Robert Abbe, J. B. Roberts, and J. S. Wight.

In addition to the above specially selected subjects, the following papers have been offered:

1. Unreduced Dislocations of the Astragalus. By Dr. Stephen Smith, New York.

Fellows who propose to present volunteer papers are requested to send to either of the undersigned the titles of their proposed papers as soon as possible, in order that they may be properly classified and arranged for the final programme.

Fellows are also requested to notify the Chairman of the Committee whether they will take part in the discussion upon any of the special subjects given in the above list.

Nicholas Senn, President, J. R. Weist, Secretary, J. Ewing Mears, Recorder, F. S. Dennis, John S. Billings, Business Committee.

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ORIGINAL ARTICLES.

HERBERT TERRY, M. D., Providence, R. I.
The Preventable Deaths of Child Birth. 357

CLINICAL LECTURES.

ROSWELL PARK, A. M., M. D.
Sarcoma: Arthritis Deformans: Cicatrix following Burn: Morbus Coxarius. 360

COMMUNICATIONS.

JOHN A. LARRABEE, M. D., Louisville, Ky.
Cardiac Stimulation in Pneumonia. 364

DR. M. R. MITCHELL, Topeka, Kan.
Asepsis in Obstetrics. 366

SOCIETY REPORTS.

The Louisville Medico-Chirurgical Society. 368

The Western Association of Obstetricians and Gynecologists. 371

CORRESPONDENCE.

"Innocents Abroad." 383

New York Letter. 384

EDITORIAL

The Reductio ad Absurdum. 386

TRANSLATIONS 388

ABSTRACTS 390

CURRENT LITERATURE 393

PERISCOPE

NEWS AND MISCELLANY 396

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THE
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ORIGINAL ARTICLES.

THE PREVENTABLE DEATHS OF CHILD BIRTH.*

HERBERT TERRY, M. D., Providence, R. I.†

This subject was brought to my mind by the death, in another State, of a lady 23 years old, an only child, married but little more than a year, and under circumstances which I think you will all agree could be the result only of gross neglect on the part of the physician in charge. When this lady was seven and one-half months pregnant, I learned through a mutual friend that the family were greatly worried because she was bloated, especially in the face and hands. The confinement was expected about January 1, and since the last meeting of this Association, I have learned of her death.

In this little state of Rhode Island, during 1891 (the last report to which I had access) thirty-two women lost their lives in child birth. Though not exactly *apropos*, I cannot help quoting Dr. Helen W. Bissell in the *Northwestern Lancet*. She says: "Some may argue that accidents occur only once in fifty or one hundred times, but I think if one in fifty or one hundred passenger trains ran off the track there would be a loud call for a somewhat different management."

The preventable deaths in child-birth I hold to be from post-partum hemorrhage, puerperal eclampsia, and puerperal fever. Deaths from exhaustion are not occurring in recent years with the universal knowledge of the use of forceps and other means for hastening delivery in the interests of the mother. Neither do I wish to include deaths from placenta prævia among those preventable, though probably in no class of abnormal cases of childbirth does so much depend on the judgment and experience of the attendant as in those in which the placenta is prævia. The treatment, however, is no more preventive of death than is tying an artery that is wounded. So might craniotomy, Cæsarean section or symphsiotomy be likened to an amputation for malignant disease, though the dangers from these formidable operations might be avoided by the frequent use of the pelvimeter.

The almost universal cause of post-partum hemorrhage is a relaxed state of the uterus. After the child is born it is usual for the uterus to remain at rest for a time (perhaps twenty minutes) when contractions for the purpose of separating and expelling the placenta begin. As the placenta is separated from the uterine wall, the blood vessels are closed by the peculiar arrangement of the muscles and blood vessels. The time elapsing between the birth of the child and the birth of the placenta may be diminished by stimulating the uterus to contract by rubbing it when contraction occurs, hastening the expulsion of the placenta by compression after the manner of Credé. While too early separation of the placenta either by compressing the uterus or, what is worse, pulling on the cord, is usually promptly followed by a uterine contraction that

*Read before the Providence Medical Association, Jan. 1, 1893.

†Visiting Physician to the Providence Lying-in Hospital.

closes the blood vessels, yet the saving of time is at too much risk of leaving the vessels open. After the placenta is delivered the uterus should be watched and firm contraction insured by stimulating it on the slightest sign of relaxation by cold or rubbing. This is of value to prevent post-partum hemorrhage, and it will be appreciated by your patient as a preventative of after-pains. If, after twenty minutes to half an hour, the uterus remains well contracted and the pulse has diminished naturally in frequency, then, and not until then, may the patient be left. Of course, such accidental causes of post-partum hemorrhage as ruptured varicose veins in the vagina, lacerated cervix and the like need not be considered, though it is well to bear in mind that a full bladder may interfere with the contraction of the uterus after, as well as before, labor is completed.

In all the records to which I have had access, of autopsies performed on women dying of puerperal eclampsia, kidney lesions have been found. If puerperal eclampsia has occurred without some previous symptoms of renal incompetence, it must have been very rarely. Albuminuria, abnormally low specific gravity, *with* or *without* a diminished secretion of urine, are the principal symptoms referable to the urine. Albuminuria may be transient or, I think very likely, absent as it frequently is in some of the chronic forms of Bright's disease. Of the other symptoms of renal incompetence the prominent are vomiting, œdema, headache, disordered vision, vertigo, restlessness, sleeplessness, weariness and mental disorders, especially mania. Any one of these should lead to a careful consideration of the patient's condition. I have learned by experience that a severe trace of albumin, even with some œdema of the feet and legs, may be disregarded. I have also learned that a considerable amount of albumin, even though the patient shows no other sign of illness and is in the best of spirits, it is a danger signal *not* to be disregarded. It is the duty of every one of us to examine the urine of those whom we expect to attend in confinement, with sufficient frequency to be certain that the urine is normal, and to request the patient or some member of the family to report at once the occurrence of any of the symptoms enunciated above.

Omitting any theories, it is without doubt the existence of pregnancy that determines the kidney lesion, and after delivery in the majority of cases, the kidneys regain their functions. It is a recognized fact too, that the most important factor in the successful treatment of the convulsions, when they do occur, is the emptying of the uterus. It follows from these two propositions that the most successful preventative treatment of puerperal eclampsia lies in abortion or premature delivery.

The child's existence, however, must be taken into consideration, and abortion or premature delivery must be recommended with some qualification. If the child is viable you have no more right to subject the mother to the risks of convulsions or irrecoverable renal disease by allowing the pregnancy to continue, than you have to subject the child to the risks of being prematurely born. If, however, the child has not reached a viable age, then an abortion should or should not be performed, according to the length of time pregnancy has already existed. If the child has already arrived nearly to a viable age, i. e., if pregnancy has existed six and a-half or seven months, attempts should be made to carry the mother successfully along by means of diaphoretics, diuretics, cathartics and tonics until the child is viable, when premature delivery should be accomplished. If, however, renal disease is discovered during the early months of pregnancy, any attempt to continue the pregnancy can result only in disaster. If convulsions do not occur, a disease which cannot be recovered from is the result. Fortunately nature solves the difficulty in the majority of cases by a spontaneous miscarriage, and we should follow her limits by inducing abortion under the same circumstances.

The last class of cases considered covers, of course, those in which pregnancy supervenes on pre-existing Bright's disease. Although hardly within the province of this paper after what I have written, I cannot but add that premature labor should not be induced without preparing the patient for it by free watery catharsis, lest we should bring about the convulsions we wish to avoid.

The greatest number of deaths occuring in child-birth are from puerperal fever, and yet these above all others, are with most certainty prevented. Puer-

peral fever is every time sepsis and prevention is asepsis. This is not *probably* so, it is a positive fact. It is not uncommon to hear practitioners, after years of experience in midwifery, claim with a boastfulness that is truly childlike, that they have never used antiseptics in childbirth and yet have never had a case of child-bed fever. So do some thieves escape the police for years. But unlike the doctor the thief takes the chances himself. That I have a right to make this assertion in regard to aseptic midwifery as strong as I have, is shown by the report of the Boston Lying-in Hospital for 1891. Out of 1270 women delivered, there were but four deaths. One of these deaths was from cancer; one from phthisis; a third out of the four from scarlet fever, and in all death took place after a safe delivery. The fourth death was from the vomiting of pregnancy, and the exhaustion was so extreme when the patient was brought to the hospital that nothing could be done to save her life. If we except this last, as we must, there was not one death out of the 1270 women attended, that was attributable to child-birth. And this in a hospital where, before our knowledge of the nature of asepsis, it was dangerous for a patient to be confined. During my own term of service as house-officer in 1879, when we washed our hands *after* an examination and not before it, and lubricated the examining finger with vaseline from the same jar that was moved from one patient to another as required, out of ninety-eight women delivered, five died and eleven had puerperal fever. What a showing that is by the side of the report from the same hospital for 1891.

My own practice now is, in the first place, to make as few examinations as possible; most of the diagnosis is made from external palpation, the length of time labor has been in progress, and the character of the pains. It has been advocated even to omit vaginal examinations altogether unless interference is probably necessary. Before the patient is approached, the hands and arms are thoroughly washed in soap and water and scrubbed over and over again with a nail brush. Then they are scrubbed over and over again in a 1-1000 solution of corrosive sublimate. The patient's genitals are carefully washed by the nurse. Any instrument to be used is sterilized in boiling water and kept in a solution of carbolic acid. Hands and instruments are lubricated with "bichloride soap" rendered soluble by a 1-1000th corrosive sublimate solution.

Of the after-treatment I can only say it is carried on as strictly as possible in the same lines of asepsis. I believe that it is a result of this care that I rarely see "milk fever," and have never, so far, to regret the occurrence of a case of child-bed fever, either in my private or hospital practice. This paper is not intended to be explanative, and, of course, it covers only what everybody knows, but the number of deaths from child-birth in Rhode Island, which have been acknowledged to be due to preventable causes, shows very plainly, that greater care might,—in fact, should,—be taken.

The Armour Institute.

The erection of this building by Mr. Philip D. Armour has been going on for a year, but the purpose of the building was kept "dark" until Mr. Armour left for Europe recently. He gives this building and an endowment of $1,400,000, but that does not include the fittings, which are to be put in at Mr. Armour's expense. The building is one of five floors. On the second are the chemical laboratory, the chemical lecture room, the physical laboratory, the physical apparatus room, the physical lecture room, and electrical rooms. The third floor will be used by students in freehand drawing, mechanical and architectural drawing, and in commerce and business.

The fourth floor is devoted to the domestic sciences, there being departments of cooking, dressmaking, millinery, and kindred studies. At one end of the fifth floor are the gymnasium and technical museum. The faculty of the institute will be of the highest standing, and it is Mr. Armour's desire that students may have opportunities to be prepared for the higher universities, or practical work in any field or mechanical or scientific labor. Every possible convenience for scientific research and experiments will be provided. The institute is not located in a fashionable portion of the city, and Mr. Armour's idea in placing it where he has, is said to be to put the institute among those whom it will most benefit.—*Ex.*

CLINICAL LECTURES.

SARCOMA: ARTHRITIS DEFORMANS: CICATRIX FOLLOWING BURN: MORBUS COXARIUS.*

ROSWELL PARK, A. M., M. D.

SARCOMA.

This patient is a man, aged thirty-one, who presents a tumor in the region of the groin. Four weeks ago he received a blow in this place from a barrel. Previously he was perfectly well and was not aware of any swelling in the groin until after the injury.

The inguinal tumor is evidently composed of lymph nodes and we might jump to the conclusion that we have here buboes, and begin to search for evidences of past or present venereal disease. But of this we get neither indication nor history. The next hypothesis would, perhaps, be of tubercular involvement of the nodes. But there is nothing to verify this diagnosis. We have to differentiate, I think, between tubercular and malignant disease. There is a history of injury which has a little bearing on the case, but not very much since malignant disease is known to develop rapidly after an injury, and it has been known to occur with just the same rapidity without any traumatism. It is possible to have a tubercular infection also following an injury. To aid in the diagnosis I call your attention now to another feature, namely, a large mass in the pelvis above Poupart's ligament and dipping down into the iliac fossa. Yesterday, on rectal examination, it was easy to make out a mass with which I could get almost a ballottement. Considering the presence of the large mass in the pelvis with the external lymphatic swelling, the diagnosis becomes almost certain, that we have to deal with a malignant condition, and probably a sarcoma. Of course, it might be a carcinoma, but this mass, so far as I can learn, arose in tissues which are not supposed to have epithelium, and the patient is rather too young for carcinoma.

The patient has not suffered much pain; he has failed quite rapidly; there has been no temperature development such as would be expected with tuberculosis, and so, partly from the absence of that which we would look for in tubercular trouble, and partly from the presence of the large pelvic mass, which is larger than I have ever seen develop in the same length of time from tubercular infection, I have come to the diagnosis of sarcoma of the lymph-nodes and the lymph channels extending from the groin up into the pelvis.

The mass extends too deeply into the pelvis to justify any attempt at extirpation. If the trouble is going on as rapidly as the patient thinks, there must certainly be lymphatic involvement above the point at which I can detect it from the outside. While it would be perfectly possible to remove the mass in the groin and even to separate a large portion of the internal tumor, I should feel certain that I was leaving *in situ* the seeds of fresh trouble, and so I should not advise operation in this case.

I should advise the experimental use of arsenic iodide in doses as large as can be tolerated, commencing with four milligrams three times a day; then giving four doses a day and increasing the dose as much as possible. Or one may give Donovan's solution of the iodide of mercury with the iodide of arsenic. We should commence with doses of twenty drops three times daily, to be pushed to the physiological limit. I think it is certainly true that arsenic influences cell growth, and there are cases in the experience of every surgeon, of neoplasms whose growth has been rendered slower or checked by the internal administration of the drug. But I should regard it as miraculous if this case were cured—provided I am right in the diagnosis of sarcoma. All that I hope to do, therefore, is to check the growth of the tumor, cause the subsidence of a distressing symptom and prolong the patient's life.

*Buffalo General Hospital Surgical Clinic. Reported by A. L. Benedict, A. M., M. D.

ARTHRITIS DEFORMANS.

This patient is a man of fifty, who presents a very curious condition of the knee-joint. I shall not attempt to give you an exact diagnosis previous to the operation. I first saw him two years ago, a fact which I had forgotten till reminded by the patient. About eleven years ago he fell from a load of hay, striking with this leg and joint upon a pole which lay on the ground. In some way the joint was seriously injured. He has been lame and partially disabled ever since. The joint has been swollen and in its present condition for about two years. He says it is over two years since he himself noticed inside the knee-joint a movable body, not one of the little masses of detached cartilage which the Germans call "joint mice," but a good-sized body. There is certainly something of the kind in the joint cavity, as nearly as we can judge from the external sensations. There is a large amount of distension of the synovial sac; there is alteration in the shape of the bones, especially the upper end of the tibia, and there is more or less bony outgrowth from the margin of the head of the tibia. The knee is growing slowly worse instead of better, and I have advised the patient to have at least an exploratory operation performed, and then, if anything calls for further interference, to allow me to meet the indication.

Around many joints, as the result of injury, or even of the uric acid diathesis there are formed masses of new tissue, and alterations occur in their contour with the growth of exostoses so that the original appearance of the joint becomes totally changed. To these conditions in general has been applied the term *arthritis* (or *osteitis*) *deformans*, and, undoubtedly, in this case we have to deal with something of this character. The operation has for its purpose a better acquaintance with the internal conditions; the removal of whatever diseased or deformed tissue can be removed, and the improvement of the function of the joint. Incidentally we must try not to make matters worse than they are at present.

He has had just the preparation which every case of any importance has in my clinic. The area of operation is shaved and cleaned, a green-soap poultice is applied and the part enveloped in an antiseptic dressing for twenty-four hours before the operation. The knee is now scrubbed with a bichloride solution, and the adjoining parts are covered with towels moistened in the same solution. The hands of all of us who come in contact with the field of operation or the instruments and dressings, are thoroughly cleansed with soap and water, care being taken to keep the nails short and to brush vigorously around and under them.

We now add antisepsis to apparent cleanliness by dipping the hands into a potassium permanganate solution. Those of you who are near can smell the ozone which arises, and you can all see how the organic matter is blackened. The hands are then bleached in a solution of oxalic acid and hyposulphite of sodium.

When the knee is drawn up you notice the irregular bosselated appearance, some of the swelling being fluctuating and consisting of the distended joint-capsule, the rest being a bony outgrowth. Above the margin of the head of the tibia I feel a hard mass, and above this a movable body of whose adhesions to other tissues I can form no idea until it is exposed. The slow growth seems to be more of the nature of an exostosis than of a true osteoma. Malignancy, I think, we can exclude altogether. In exostosis there is some feeble suggestion of physiological function, a mark of distinction from an osteoma.

On making a longitudinal incision at the inner border of the patella I come upon the movable mass to which allusion has been made. It is very closely adherent to the surrounding tissues and I will dissect it out with the scissors while an assistant holds it with the tenaculum. The tissues about the joint are enormously thickened and I doubt if I have even yet entered the joint cavity proper. Above this mass I feel something large and hard, which proves to be the enlarged condyle of the femur. As I manipulate the leg you observe that there is considerable lateral play permitted by the disorganization of the ligaments. The external lateral ligament is particularly weak, for bringing the leg inward and then suddenly outward, there is a hammering sound as the bone surfaces come together. This is entirely abnormal, and must be due to the relaxation of the outer lateral support. I do not feel that any further interference is necessary after removing this mass and

trimming away some of the newly formed tissue. I will, therefore, close up the cavity that I have opened. There are no dead spaces left to require drainage. I am using the subcutaneous suture which leaves no cross-marks and makes only a linear scar. After applying the antiseptic dressing a well-padded posterior splint is bound on the limb and, later, the leg will be done up in plaster-of-Paris in order to give it prolonged rest.

CICATRIX FOLLOWING BURN.

This patient affords one of the best possible illustrations of the evil results of vicious cicatrization following a burn. About fifteen months ago he was burned about the face and arms by a coal-oil explosion. The burn was of the second degree, according to the simpler classification into three degrees which I think is preferable. The old French writers used to give a classification into seven degrees, which is almost like the seven degrees of grace, rather indefinite and hard to outline. Three degrees may be very clearly defined—(1) When the epidermis alone is burned; (2) When the epidermis is burned through to the subcutaneous tissue; (3) When the burn is very much more extensive.

Burns leave enormous surfaces which have to heal by a process of granulation and cicatrization, except that where little islets of epithelium are left undisturbed the cells may proliferate and help form a covering something like a true skin, but destitute of sudoriferous glands and hair follicles. When the epithelium has been entirely destroyed we can hope for nothing more than a cicatricial covering. As I have had to remind you often, the result of the inevitable contraction of cicatricial tissue is to produce more or less deformity. The very worst illustration of this which I ever encountered was in a boy who was brought to this clinic three years ago with a very extensive burn of the front of the neck which was almost dislocated by the drawing of the cicatricial tissue. Relative to the condition when I first saw him, the boy made a good recovery after a most extensive operation.

This case is not so bad, but there are cicatrices of the anterior region of the neck which draw the chin down. The same contraction has drawn down both shoulders so that one arm can scarcely be lifted from the side. The patient seeks relief and he has been told that the operation consists in substituting one scar for another, but allowing the more annoying cicatricial tissue to be cut away. I shall try to raise flaps of normal skin from contiguous regions and transplant them to the affected regions, leaving hinges to insure their blood-supply. This is a kind of plastic work which has often to be resorted to in cases of this sort. Two weeks ago we had here a case of a young woman who was also burned by coal-oil in about the same way as this patient. She had along the border of the jaw a very thick keloid scar which she considered a very serious disfigurement and which she wished to have removed. I accordingly dissected it out and put up a flap from the neck to cover the raw surface.

The scars here are not only bands of fibrous tissue but they have a livid red appearance and an irregularly raised or "napped" appearance which entitles them to be considered as in some degree keloid. Keloid is a peculiar kind of fibrous tissue which is stimulated to grow especially after such accidents as burns. Keloid tumors do occur spontaneously, as large hyperplastic growths of the fibrous tissue of the skin, quite similar to fibroids or even some fibro-sarcomata. The structure is not exactly the same, although it is similar. Such tissue as you see here is quite different from the smooth cicatrix which forms after the healing of ulcers. The tendency to the formation of keloid tissue is something that cannot be prevented. The more you cauterize it and try to keep it down, the more you will provoke its growth.

What annoys this man particularly is the presence of one or two strips of keloid tissue on the neck which bridle down the head. I shall remove these and substitute, as well as I can, skin flaps from the surrounding parts. In a case of this kind, it is well not to raise the patient's expectations too high. The cosmetic effect will not be ideal under the best of circumstances. Fortunately, this patient does not care about that element in the treatment. He wishes to be relieved of the limitation of movement caused by the keloid scars.

MORBUS COXARIUS.

As this boy sits on the table you notice the apparent shortening of the left leg. As he stands you will observe that he

stands on his toes and there is great displacement at the hip; as he lies on his back, with the knees raised and the thighs flexed on the trunk, when I attempt to bring his knee to the table the back is raised. There is a teetering, so to speak, of the knee and back, owing to the spasm of the psoas muscle which prevents motion at the hip. There is marked adduction, and in the endeavor to make the normal leg parallel with the adducted one, his body is drawn to one side. The adduction is due to spasm of the adductor muscles. I can hardly make any motion of the thigh without moving the pelvis. We can make out the actual shortening in one of two ways; either by measuring from the anterior spinous process of the ileum to the internal malleolus, or by bringing his knees up when, if the pelvis is horizontal, any shortening will be evident by the knee of the affected side being lower than the other. In this case the actual shortening is slight, the marked difference in the two legs being due to the adduction of the affected one. I can illustrate this to you by sitting before you with my feet drawn upon the round of the stool. While my body is at right angles to you and my feet pointing directly toward you, the knees are in the same plane parallel to the lateral plane of the body. But if I turn slightly, by adducting one thigh and abducting the other, then the knee of the adducted leg appears nearer the body and there is apparent shortening of that extremity.

There is no question but that this is a case of hip-joint disease in the second stage. The boy's parents are very poor and have not the means for buying an apparatus. I think it *might* be possible in such a case, given time and money and careful supervision, to treat the disease apparently successfully without operation. There being no sign of suppuration yet, although there must be a focus in the bone somewhere to produce the reflex symptoms, I believe that by first keeping the child in bed with weight and pulley applied to reduce the muscular spasm, and then by nourishing him freely and getting him out doors with a splint to keep the leg motionless, we could probably effect a cure by ankylosis. This would require at least a year's time and would entail a relatively great expense for a poor man, for the splint alone would cost at least thirty-five dollars. It would be a pity to start such a line of treatment and then find that the parents could not persist in it. Under the circumstances, therefore, I should recommend resection as being the quickest and cheapest means of cure, and I would not be averse to it at any time though now it is expedient rather than necessary. Ten years from now I believe the boy will be better off with the resected joint than he would be with the ankylosed hip-joint which could be obtained from the costly rest treatment. The upper end of the bone is not now enlarged, or I should recommend resection without regard to the features alluded to above. In fact, on general principles I believe that the results of exsection approach nearer to the ideal desideration than can be obtained in any other way, save in certain very favorable cases which are seen very early by competent men.

Dislocations.

Never attempt to reduce a dislocation of the humerus in an old person without first examining the state of the arteries to inspire you with caution and gentleness.

Never put a *booted* foot in the axilla to reduce a dislocation.

Always reduce by some other method if the rib are broken on the same side.

Remember that injuries to the elbow joint are often very difficult to diagnose, if much swelling co-exists; but:

Never give a positive opinion of an elbow joint until you have carefully examined the relations of the olecranon, internal and external condyles, and head of radius.

Remember that in dislocation at the elbow the joint becomes rapidly irreducible.

Never forget that a faulty diagnosis may cause loss of motion in the joint.

Never be ashamed to say you "do not know" until the swelling has subsided, and you are able to be certain of the character of the injury.

Do not forget that in dislocation of the carpal bones that the great point is to see that the motions of the fingers are early restored.—*Med. Era.*

Homeopathic.—Gwendolyn Eeversleigh laid her throbbing brow against the pane. She was a believer in homeopathy. Pane vs. pain!

COMMUNICATIONS.

CARDIAC STIMULATION IN PNEUMONIA*

JOHN A. LARRABEE, M. D., Louisville, Ky.

Pneumonia has probably been the subject of more medical literature than any other disease. When I graduated in medicine, I am quite certain that, of thirty-five thesis required of candidates for graduation, pneumonia constituted the subject for about twenty-five. I well remember the compliment paid me by the Faculty because I had chosen some other subject. I wrote my thesis for graduation on the subject "Hospital Gangrene," and I have many times thought what a relief it must have been to that dignified body—most of whom are numbered with the angelic doctors—to have a change of subject. I may add with pardonable pride that my thesis was made the subject of special mention.

Those puerile compositions were a tolerably fair reflection of the medical teachings of those days in which *idiopathic* inflammation was an acceptable term when illustrated by the stages "Calor," Dolor," "Rubor" et "Tumor." It is also true that there is no disease that more clearly marks the progress made in scientific medicine for the last twenty-five years, than this same trite subject, pneumonia. The auscultatory signs, the percussion note, the transmitted resonance, the hepatization and the stage of resolution were necessary to the elucidation of the phenomena supposed to be produced by a "bad cold." Cheesy deposits, the unabsorbed products of inflammation, were but different stages in the development of tubercle and the cause of the rapid consumption.

How little did we then dream that behind all this patient pathological study in which we have all craned our necks in the "dead house;" that, underneath all this crude tubercle and cheesy deposit there existed a wonderful world teeming with microscopic life, the light of which should make plain the darkness of that pathology.

Before the wonderful discoveries of Friedlander I taught the crisis of pneumonia was to me a most unaccountable phenomena, in that, without any visible improvement in the consolidated lung we should have as sudden an assurance of recovery as we had of its invasion. The discovery of the pneumococcus and its pneumotoxin as the indisputable cause of the disease, and the anti-pneumotoxin which produces the cure, are stepping stones upon the boundary of a great natural law.

Those of us who may be permitted to live another decade will see the benefits arising from this discovery, and will be able to arrest the progress of acute infectious diseases by injecting the products of the disease taken from convalescents.

The two grand divisions of pneumonia which differ none the less widely in etiology than in the mode of termination, will always be taught. The catarrhal form, which after all is only an ultimate bronchitis, the type of which is seen in infancy and as a complication in many of the exanthematæ, will not enter into this discussion. It will be understood, therefore, that whatever may be said concerning cardiac stimulation concerns the so-called croupous pneumonia only.

In all this time, regardless of the change of views as to etiology and pathology, men, women and children have been dying from pneumonia in no less numbers. In all this time, the mode of the approach of death has remained the same under any and all treatment, coming through the right heart—a distended right ventricle, a stasis in the pulmonary circulation and a corresponding emptiness of the arterial current.

It may be truly said that therapeutics follows the advance of medicine just as the coal cart follows the engine—always a reasonable distance behind. Just here I ask your indulgence for a moment while I quote some statistics from the most excellent paper of Dr. J. T. Jelks, of Hot Springs, Ark., who also quotes them from Dr. Townsend Coleridge and Dr. Wells' report of "Mortality of Pneumonic Fever."

*Read before the Medico-Chirurgical Society, Feb. 3, 1893.

These statistics are entitled to our consideration on account of the care with which they have been collected and from the acknowledged truthfulness of the author. From the first of these reports it appears that 1,000 cases of pneumonia were treated in the Massachusetts General Hospital between the years 1822 and 1890 inclusive. The average mortality was twenty-five per cent. From 1822 to 1832 the mortality was only ten per cent. In the latter report, the number of cases tabulated was 223,000, and these statistics include the various hospitals of America and Europe, and embrace the time between 1800 and 1890. The average mortality was $18\frac{1}{10}$ per cent.

Now in the first period of this time it cannot be doubted that the treatment was heroic in the fullest sense of that term as it applies to blood-letting, calomel and tartar emetic, for this treatment marked the first half of the nineteenth century. Now to make another division of the same report, the mortality in the last ten years has been twenty-eight per cent., and this must have included many cases treated upon the expectant plan advocated by Dr. James Hughes Bennett.

How then are we to harmonize the results obtained under a treatment long since condemned by common consent of the profession, with the results of the treatment of to-day under the broad light of modern pathology; in other words, the ten per cent. mortality in the decade between 1822 and 1832 with the twenty-eight per cent. mortality between 1880 and 1890. Were those Sangrado bleedings and those terribly depressing agents less active upon a stronger population, or did they, in spite of the evils which they could not fail to produce, strike at some underlying principle in therapeutics which we, with all our modern accomplishments, fail to recognize. I am disposed to the latter conclusion. Notwithstanding they come to us like a sound from the ringing rocks of past ages, there is to-day much truth in the statement that blood-letting is indicated in pneumonia. The period for its employment is at the time when the right heart is over-distended and is about to cease the performance of its function. More blood is coming into the right auricle than can be forced through the obstructed lung, and the ventricle is fagged out in the futile attempt to fill the left heart. The right ventricle is so distended at this time that the apex beat is completely removed from its original site in the inter-space between the fifth and sixth rib, and the ear detects a dull muffled sound, and percussion reveals an increased area of dullness. All this occurs at a time when the ptomaines from the vegetable pneumococcus are being absorbed into the circulation, and before the anti-pneumotoxin has been formed in the albumen of the blood. Experiments in vivisection have demonstrated that a heart brought to a stand still in such a diastole, may be revived by aspiration of the right ventricle.

The question may then be properly asked, where does the application of cardiac stimulation come in this condition? Is it philosophical to attempt the relief by a *vis-a-tergo*, or is it more rational to attempt the relief by a *vis-a-frontis?* Are these the indications for the employment of digitalis? It may be a good plan to goad the tired ox that has fallen in the furrow if you want a little more work. But you will have a little less ox. It may be good therapeutics to stimulate a diseased kidney with irritant diuretics if you want just a little more urine and a little less patient. And it may be good practice to give digitalis to a fagged out heart in the stage of hepatization in croupous pneumonia. But I doubt it. Digitalis stimulates a weak heart by contracting the arteries and arterioles, throwing the blood back upon the heart itself, and, where there is no pulmonary obstruction, the action is prompt and efficient. But the very condition which is killing the patient in pneumonia would be rendered still more dangerous by such an agent. It has been found that even ligation of the lower extremities just sufficient to prevent the return of venus blood, is followed by relief to the heart. The sense of relief felt by the patient upon the application of a hot flax-seed poultice, is in a large measure due to the dilatation of the blood vessels of the chest walls. Pediluvia also would prove of great service were it not for the ever present danger of assuming the erect position. Alcohol will prove a far better cardiac stimulant in pneumonia by reason of its power to dilate the capillaries, thereby retaining more blood in the skin, while at the same time it may have some value as a respiratory food. Nitro-

glycerine and the nitrites may be expected to rescue a heart after the manner of aspiration, and theoretically, would prove to be cardiac stimulants in the condition under consideration. I understand also that they have been of practical benefit. Cuppings, either with dry or wet cups, over the region of the inflamed lung have also been productive of relief. Very warm baths give almost immediate relief but are difficult of administration to adults. They are available in childhood.

It should be remembered that at one time veratrum viride and aconite superceded blood-letting. These agents, long considered identical in action, have nothing in common. The former does not weaken the muscular power of the heart and may have a place as a cardiac stimulant in pneumonia, while the latter is a highly dangerous drug capable, even in moderate doses, of paralysing the centers of Stechenow in the heart. Strophanthus is a far more effectual and safer remedy in the condition under consideration than is digitalis. Strophanthus acts upon the ganglionic motor centers in the heart, leaving the arterial tension alone. Caffeine is a cardiac stimulant by no means to be despised in pneumonia. The value of a cup of strong tea or coffee has been long recognized in domestic practice. Very small doses of strychnine may also be of advantage.

ASEPSIS IN OBSTETRICS.*

DR. M. R. MITCHELL, Topeka, Kan.†

Asepsis, as a comprehensive term, is applicable to three different fields in the struggle against the septic germ, viz: Prevention by cleanliness, by the removal or avoidance of such conditions as may cause putrescence or septicæmia; second, by correcting or counteracting septic infection already existing—antisepsis; third, by destruction of the septic germ—germicides.

The advantages of thorough aseptic management applied in the fullest sense in general surgery are to-day acknowledged by every one worthy of the name of surgeon. In fact the faith has become so strong and the practice so common, that the surgeon not using it is liable for mal-practice in case of bad results.

The principles of asepsis are as scientifically applicable to obstetric practice.

The prevention of puerperal sepsis is the all important phase of the subject, and it is this that I desire particularly to emphasize in this brief discussion.

The application of prophylactic precision can nowhere have a more useful place than the lying-in chamber. True it is that occasionally a case of puerperal sepsis cannot be cured, but very seldom is it true that it could not have been prevented.

As I turn my attention to this subject I rejoice and take courage at the thought that it has become of late days a topic of absorbing interest. It is being discussed by medical minds in cities, towns and rural districts with a great degree of practical intelligence and enthusiasm.

The croaker, crying out against all this as meddlesome midwifery, will soon be found only in the past.

Much responsibility is imposed upon the obstetrician of to-day. He is forced to contest the field with the abdominal surgeon for a record of the greater number of cases without a death. The country family physician is now set to thinking how he may compete with the city accoucheur applying his aseptic methods while on his rounds of work along the thickly populated alleys, byways and highways. Yes, and he finds, too, that he must improve his record in order to share honors with the maternity physician whose germ-laden hospital wards a few years ago were the slaughter pens of a large percentage of lying-in women.

The records of the New York Maternity on Blackwell's Island, or the Boston Lying-in Hospital, only a decade ago showed a death rate of from four to fifteen per cent.

But, after the introduction into these institutions of aseptic care, there was a speedy diminution of fatality. As these

*Read before the Western Obstetrical and Gynecological Association.

†Professor Obstetrics Kansas Medical College.

methods have been gradually developed and simplified to a high degree of accuracy and preciseness in all the minutiæ, to-day's record will show a series of five hundred labors or more without a death.

In the Transactions of the Obstetrical Society, of Philadelphia, of last January, it was reported that, at the Preston Retreat, there had been one thousand cases of labor without a death. And this report comes to us as the result of the skillful direction of none other than America's most successful abdominal surgeon and obstetrician, Dr. Joseph Price.

This institution is a model in all of the varied details of purity and cleanliness as well as of antisepsis.

Why this great gain in the saving of the life of parturient women?

What are some of the conditions attending the lying-in process which make it necessary to use such precautions in order to guard against puerperal sepsis? Although the phenomena of normal labor are physiological, yet there are pathological changes of a greater or less extent in every case of labor, normal or abnormal; and, as Dr. Price expresses it, "A woman during and after labor is a wounded woman."

In every child-birth there is, in addition to the utero-placental attachment, more or less contusion or laceration in some part of the birth canal. It may be the cervix, the vaginal wall, or the vaginal orifice. However insignificant such a lesion, it affords a possible entrance for septic infection—a disordered state which, in the words of Prof. E. P. Davis, of Philadelphia, "is identical with septic infection occurring in any recently wounded patient, whether it be a man crushed by machinery, whose wounds become infected during handling by the careless surgeon, or a woman whose torn perineum is infected during labor by the unclean fingers of her attendants." Again there is a greater or less depression of the nervous system, a lassitude and lowering of vitality which leaves the woman less able to resist septic influences.

As to precautionary measures in these cases I cannot enter into any detailed description, but will simply allude to a few leading points of procedure.

In a general way the patient should be surrounded with such environments that the dangers of infection may be reduced to a minimum, and the process of absorption and repair may be interfered with as little as possible, but encouraged in every way.

Proper attention is requisite before, during and after labor.

Before labor, there should be preparation of the patient by thorough bathing, and she should be furnished with clean clothing, clean bed, clean and well aired apartment. Labor begun, the rectum and bladder should be evacuated. The external genitals thoroughly washed with soap and water, and then bathed in an antiseptic solution such as 1 to 2,000 of bichloride of mercury.

The vagina should be douched with the same solution, or with a solution of creoline, hydronaphthol or carbolic acid. There should be but little manipulation of the vulva and vagina, and only with hands rendered thoroughly aseptic. All instruments and vessels used about the patient should be cleansed with carbolic acid and boiling water.

Following normal labor, the vaginal canal should be douched once with a solution as before labor. The external genitals should be cleaned and bathed with the bichloride solution, antiseptic gauze with a pad of folded napkin, or better, of absorbent cotton, applied. The vulva should be thus cleaned and dressed every four to eight hours until the cessation of the lochial discharge.

Throughout the puerperal period any evidences of septic infection from decomposition of lochia, blood-clots, or membranes should be promptly met by antiseptic vaginal douches, and even intra-uterine, if that organ is involved. If the bichloride solution is used, it should be of the strength of 1—5000, followed by douche of boiled water.

Dr. E. E. Montgomery suggests iodoform gauze rope introduced intra-uterine for drainage in these cases.

Another essential procedure is to shut the doors of entrance for sepsis, viz.: the veins, lymphatics and fallopian tubes, by promoting uterine contractions and aiding other physiological processes of restoration.

The course of puerperal sepsis can be readily apprehended when we recall the anatomy of the lymphatics in the vicinity of the genital tract. And remembering the ready access of infecting germs through

these channels in freshly made wounds, we can realize the speedy involvement of the numerous glandular structures in the vicinity of the pelvis, extending possibly to the uterus, its appendages, and the peritoneum. Hence we will have such inflammatory conditions as vulvitis, vaginitis, metritis, ovaritis, salpingitis, and peritonitis.

A very important consideration in connection with this subject is the fact that the fatality from septic infection is only *one* of its far-reaching results. A very large number of mild cases of sepsis, and which are mostly lost sight of by the general practitioner, become in after years, the victims of wrecked health, a life of suffering and of an untimely grave.

The work of the gynecologist to-day is largely traceable to the dirty finger nails, or the personal indifference to the simple, practical and important details of asepsis on the part of the obstetrician.

When Dr. So-and-so relates his large experience in confinements without an instance of septicæmia, and that too without the observance of the new-fangled aseptic precautions, the only rational conclusion is that the true cause of the chronic ill-health of many of his patients has not been peceived by him, and his boasted experience is practically equivalent to the confession that he is unable to recognize the presence of mild sepsis.

Since the attention of the profession has been directed to aseptic practice, the progressive tendency in technique has been to greater simplification in the details. And that is to-day the best method which affords the safest protection to the patient, and which is most easily and readily applied in the every day practice of the physician.

SOCIETY REPORTS.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, February 3rd, 1893.

The President, Dr. F. C. Simpson, in the chair.

CASE OF EXTRA-UTERINE PREGNANCY—OPERATION; RECOVERY.

Dr. A. M. Cartledge: I will just briefly run over the history of a case before showing the specimen. Some three weeks ago I saw a lady, 36 or 37 years of age, who was suffering with severe pain coming on suddenly in the right side of the chest, which proved to be an ordinary pleuritic attack very well marked at first, and subsequently followed by a slight effusion. After a week or so she recovered from the attack of pleurisy, was about the house, and and getting along fairly well, so much so that I had not seen her for four days. I was again called to see her fourteen days ago. She was complaining of excessive pain in the right side, referred particularly to the region of the appendix. This pain was described as being very intense, having existed all night. I saw her in the morning. She displayed a well-defined tenderness right over the McBurney spot, midway between the umbilicus and the anterior spine of the ilium. I believed that I had a case of appendicitis, but temporized for the time being. Her temperature at that time was 101°F., pulse about 100. I saw her again in the afternoon when she expressed herself as being much easier. This state of affairs continued for two or three days. About the fourth day I detected a slight lump in the right side over the region of the appendix, about the size of a duck's egg, which was very tender, but there were no evidences of general peritonitis. Pulse now about 120, temperature 102° F. I advised operation, supposing that it was a case of appendicitis. This was refused.

The case went on from day to day, the enlargement in the right side increasing all the time. I thought I could detect a well-marked fluctuation in this tumor. It was very tense and was typically in the appendicular region, reaching up above the McBurney point, and, taking everything into consideration, it seemed about as clear a case of appendicitis as I have ever

seen. Last Tuesday the patient complained of pain about the median line just above the bladder; tumor in the right side practically unchanged. I was becoming very uneasy about the case and urging operation. Wednesday morning pulse about 112, temperature 100° F. She complained about a week ago of some little shivering sensations. I told her that she must either consent to an operation or consult another physician, as she was certainly growing no better. She consented to the operation, which was performed last Wednesday. Believing that I had an abscess around the appendix, I made the usual incision over that organ, dissecting down carefully until I reached the sac. Then with a small incision about an inch in length covering the sac proper, I found there was no peritoneal adhesions in front because I could see some fresh peritoneum; in fact the abdomen was already open. It was my first intention to expose the sac, wash out the cavity thoroughly and remove the appendix which was supposed to be diseased. I then broke the very superficial adhesions in front, passed my hand around and located this tumor, about the size of an orange. I found the adhesions quite extensive, especially to the colon. I now commenced separating the adhesions leading down to what I supposed was the appendix, and in lifting up the intestines was very much surprised to find the tumor easily freed from from its superior attachments. I packed gauze around the intestines to get them out of the way thoroughly. I then drew the tumor up into the wound and found it necessary to enlarge the incision in a backward direction. In removing the tumor the sac was ruptured and was found to contain probably a pint of fluid. When this fluid ran out of the sac as the woman was lying on her side, something dropped which led me to stoop and pick it up and lay it aside. The sac was now discovered to be the right tube and ovary which were tied off and removed. The cavity was thoroughly cleansed and the patient put to bed in a very fair condition.

An examination of this specimen proves it to be unique indeed, as one of extra-uterine pregnancy occurring about as near the ovary as we will ever see; a condition that is denied as you are all very well aware, by some very eminent authorities, among them Tait, claiming that all cases of extra-uterine pregnancy are tubular in character. I believe this is a typical case of impregnation of the ovum just as it was being released by the ovary, the artificial uterus being the ovary itself. The tube is entirely intact. I will state that there is no history of recent cessation of menstruation, and none of the usual symptoms of extra-uterine pregnancy. How old it is I do not know.

What I want to call especial attention to is to the fact that the artificial uterus is the widely separated ovary or ovarian tissue. This patient has had one child, about fourteen years ago. She has since made an uneventful recovery.

DISCUSSION.

Dr. W. O. Roberts: I think a microscopical examination ought to be made of the specimen to determine to a certainty whether or not it is a case of extra-uterine pregnancy.

Dr. J. G. Cecil: I would not be able to give a positive opinion in regard to this case from the history given; certainly the ovary is present in the specimen and the fimbriated extremity presents a cavity which may be the cavity of an abscess, a hemato-salpinx, or it may be an extra-uterine pregnancy. I think it could be very easily demonstrated by a microscopical examination. If it be extra-uterine pregnancy it should show evidences of fœtal structure. However I do not think it is by any means conclusively demonstrated thus far.

Dr. A. M. Cartledge: It did not occur to me that there would be any difficulty in recognizing the nature of this pathological specimen microscopically, or I would have had it microscopically examined before presenting it; this, however, will be done later.

I have detailed the history very carefully, and I would like to ask the surgeons who may be inclined to the belief that it is a case of pyosalpinx, if they ever saw pyosalpinx so large as this without pelvic peritoneal adhesions. I do not see what could possibly be suggested except extra-uterine pregnancy. Even if microscopical examination reveals no evidences of a fœtus I shall still think it extra-uterine pregnancy, and that the fœtus has entirely passed away—has become digested.

Dr. A. M. Vance: Do I understand, Dr. Cartledge, that there was never a case of pyosalpinx without adhesions?

Dr. A. M. Cartledge: I have never seen a pyosalpinx one-half this size without peritoneal adhesions and do not believe it ever occurs.

Note: A subsequent microscopical examination by Dr. Vissman of the body found in the sac, reveals clearly fœtal and placental structures.

Dr. John A. Larrabee presented an essay on the subject

CARDIAC STIMULATION IN PNEUMONIA.

(See page 364)

DISCUSSION.

Dr. Wm. Bailey: I am inclined to believe that there is something in what Dr. Larrabee has brought before us in his paper. However, it is not entirely new. I remember the same question came up in the section on medicine in Detroit last year. It was advised instead of digitalis that we use nitro-glycerine for dilating the capillaries. Others claimed that nitro-glycerine gave no better satisfaction than digitalis. However I do believe that in very many of these cases digitalis is advisable when the conditions indicate that the heart is over-worked and it becomes necessary to contract the arterioles. Of course I can conceive how digitalis in other cases would not give relief. I should hesitate a long time before discarding a remedy so valuable as digitalis and resorting to other stimulants which do not contract the arterioles to the same extent.

Dr. A. M. Cartledge: What would you consider an indication in pneumonia for the administration of digitalis or any other stimulant? How long would you wait?

Dr. Wm. Bailey: I believe the principal thing in the treatment of croupous pneumonia is the management of the heart. I would put the patient in the best possible condition and assist the heart by medicine if necessary, and when it became evident that the right heart was being over-distended, then I think the introduction of a cardiac stimulant imperatively demanded. I am not quite ready to admit that I can always tell when the right heart is over-distended by auscultation, percussion, change of pulse, etc., because these phenomena may not be very manifest. Certainly I think in these cases the higher the fever the greater the danger to the heart, just as it is in every disease in which high temperature is a factor.

Dr. D. T. Smith: The conclusions as stated by Dr. Larrabee in regard to the use of digitalis are those which I have reached some time since, and I heartily indorse all he has said. My experience with this drug in pneumonia has been such that I feel justified in saying that it should be used with extreme caution.

Concerning the microbic origin of pneumonia: Notwithstanding the recent so-called discoveries and theories in this direction, I am still in extreme doubt. This is not directly in line with the subject under discussion, but I will state, in regard to the epidemic nature of pneumonia, when we see that a little change in the atmosphere from British Columbia to the Gulf coast will spread pneumonia throughout this whole territory within a time limit of two or three days, it would seem that there is something beyond the microbe to cause it.

As to the treatment of cardiac failure in pneumonia: Of course the condition of the patient, as to age, strength, etc., and the extent of the involvment indicates the danger. The portion of lung involved we have nothing to do with, other than to endeavor to secure its protection until the forces of the system can bring about resolution. I can hardly see the necessity for commencing cardiac stimulation at the beginning of an attack, as is claimed by some authorities. This treatment should be instituted only when there is evidence of failure of the heart to properly perform its functions; I do not mean the fatal failure, but when the heart fails to send the blood through the affected lung in the proper quantities to effect adequate oxygenation.

I have been in the habit of using digitalis but always in small doses. I think our aim should be in these cases to improve the general system of the patient, and as far as possible give medicines that will not disturb the digestion or appetite. A year ago I was called in consultation to see a case of grip and pneumonia in a very aged patient; I hardly thought it was a case where digitalis should be given, yet as my consultants advised its administration, I felt no harm would be done. One-twelfth of a grain of digitalin was given in twenty-four hours—one-sixtieth of a grain every four hours. Very unfavorable

symptoms developed lasting for several days. I have no doubt that owing to the condition of the patient at the time, this was too large a dose.

I believe alcohol is very valuable as a cardiac stimulant in these cases. I would also advise the use of strophanthine, which acts without contracting the arterioles. In the use of a drug which contracts the arterioles it seems to me that the heart is given a greater amount of work to perform, hence I fail to see the advantage of such treatment. Strychnine is also of service in these cases, as it acts as a steady stimulant on the heart's action and acts upon the stomach in increasing the power of digestion and desire for food. I want to emphasize the fact that I believe digitalis should be used with extreme caution.

Dr. J. A. Larrabee: In closing I would like to avail myself of the opportunity of thanking the fellows of the society for their consideration of the subject presented, and am sorry I did not hear part of the discussion. My attention was brought to this subject very pointedly in this way: I have seen numbers of fatal cases of pneumonia in which digitalis was being administered, and was impressed with the fact that we were not getting the effect that digitalis ought to produce. Instead of increasing the force of the heart's action and having generally a good effect, the opposite was the result. Then in looking up the statistics, as stated in the paper, there is something in this point. Blood-letting, although producing so many evil results, as we grant it does, evidently strikes the all important point in the treatment of pneumonia, as is shown by the statistics between 1822 and 1832—the mortality being but ten per cent. I became convinced, as Dr. Smith has said at the bedside, that digitalis did not and will not produce the good effects claimed for it. It is like introducing ergot into a full bladder to expel the urine instead of using a catheter to draw it out.

The point made by Dr. Bailey is one of considerable importance, especially in croupous pneumonia. The greater the pulse and the higher the temperature, the greater is the danger from digitalis.

THE WESTERN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Annual Meeting: Kansas City, Missouri, December 27th, 1892.

[OFFICIAL REPORT.]

MORNING SESSION.

Transaction of business was followed by the annual address and the presentation of papers.

Dr. M. B. Ward, Topeka, Kan., delivered the

PRESIDENT'S ADDRESS.

Fellows of the Western Association of Obstetricians and Gynecologists:

We are convened to formally inaugurate the Western Association of Obstetricians and Gynecologists and to enjoy the mental feast, rare in quality and sumptuous in quantity, which we are assured is in store for us.

As an association, we are yet in the stage of lactation. One year ago a meeting was held in Topeka for the purpose of organizing this association, which was attended by only a few of the number who had expressed their desire to aid in forming and maintaining such a society. Those present were enthusiastic regarding the propriety and necessity of such a society in the West.

An organization was consummated, bringing into existence the Western Association of Obstetricians and Gynecologists.

The parturition was normal; no instruments were employed; no rupture occurred to mar the perfect symmetry of the accouchement.

No programme having been prepared, nothing remained to be done with the fledgling but to wrap it in the mantle of time, and place it in the arms of our genial secretary, Dr. T. J. Beattie, who has so tenderly and wisely cared for it during the first year of its existence, that

we are enabled to celebrate with delight its first birthday, on this occasion.

I most heartily appreciate the honor of being the first president of an association whose inauguration is so auspicious and whose permanency is assured.

It is usually expected that the presiding officer will deliver, sometime during the session, an inaugural address, and it was my purpose to have carried out the established custom. But owing to a recent long and serious illness, from which I am not yet fully recovered, it has been impossible to suitably prepare such an address. I, therefore, beg your kind indulgence while I make a brief retrospect of the original plan of the organization, and a prospective view of the possibilities of the association.

Perhaps it was in accordance with the eternal fitness of things that a Kansan was prompted to take the initiative in organizing this society.

In making this reference which is intended to give Kansas credit for inaugurating many important movements that have given her a record of which all lovers of liberty are justly proud, I do not wish it to be understood that I am unmindful of the deplorable fact that, of recent, she has led in schemes whose very foundations have been carious, and the results unworthy the fair name of Kansas.

The western states are attracting universal attention on account of their wonderful resources and the prominent part they are taking concerning all great and important questions.

In no other direction are we so weak and insignificant as in the position occupied by the medical and surgical profession, as compared with the eastern states.

The East may be justly termed our Fatherland so far as concerns our profession, and we are obliged to confess that that section is entirely worthy of the honorable title.

It is to the distant East that each and all must journey if we are to gather the ripest, juiciest and richest fruit pertaining to our professional progress.

How favored, indeed, are those who are so situated that they may frequently wend their way towards this Mecca of medical and surgical knowledge.

After several visits to the East, it occurred to me that the West should at once organize a society whose aim would be to educate those whose relations and circumstances prevent frequent visits to the more favored portion of the Union, and at the same time aid in diffusing the leaven throughout the whole loaf, which comprises thousands of struggling physicians who cannot enjoy the advantages of the far-distant metropolis.

In the early fall of 1891 a circular letter was sent to about fifty prominent physicians, who were practicing obstetrics and gynecology to the more or less exclusion of the other fields of medicine and surgery, and who reside in the states of Missouri, Iowa, Nebraska, Colorado, Kansas, and the territory of New Mexico, soliciting their opinions regarding the advisability of forming a society in the West, whose special aim should be to advance the science of obstetrics and gynecology, and whose active members should be those only whose practice is limited to these special branches, or who desired to give special attention to these branches of the practice.

Favorable reply was received from nearly every physician addressed, and a meeting to complete the organization was held in Topeka, the last days of December, one year ago. .

The growth and usefulness of this organization are now assured, if the present status is a correct index of the future.

Our society should be a practical educator, sowing the seed of modern pathology and therapy in good soil, which will increase one hundred fold; in shallow soil that may not yield more than fifty fold, and, if necessary, on stony soil which may not for the present show any signs of increase, but some of the good seed may find nutrition sufficient to make a sapling whose influence will tell for truth sooner or later.

Oftentimes is it true that the dullest lad makes the most brilliant man.

Let us not despise the day of small things, though we are few in number and yet unrecognized by the medical and surgical world.

I am not certain that the plan which has been formulated for the government of our society is sufficiently broad-gauged.

In this connection I heartily recommend that a committee be appointed who shall consider this feature of the organization and suggest any change in our laws

that they may conclude will tend to increase the scope and usefulness of the society.

We should endeavor to make the programme exclusively of topics pertaining to obstetrics and gynecology,—but the surgical aspect of these branches should have such recognition as will draw to our meetings the general as well as the special surgeon.

While we would not expect ophthalmologists, and laryngologists to prepare papers on their special branches to be read before our society, yet they, and all other specialists should be encouraged to note carefully the relations of diseases, so that should their patients suffer from trouble entirely reflex, they may add their rich and varied experience, which would educate others who would not have such opportunities of observing the sympathetic relations of disease.

The general practitioner should be enticed to our meetings through the channel of the inseparable relations which must forever exist between them and the specialist.

If general practitioners could have the opportunity afforded the specialist in diagnosing obscure pathological conditions, their usefulness would be greatly increased and untold suffering avoided.

In conclusion I would urge the society to strive to secure the co-operation of prominent members of the profession who reside in the eastern and southern states, that we may have the benefit of their cultured experience and wise counsel.

On behalf of this society I extend to our friend, Dr. Joseph Price of Philadelphia, one of America's greatest obstetricians and gynecologists, who is present with us, the freedom of the floor, and cordially invite him to fill our granaries out of his rich and overflowing storehouse of knowledge.

We are to be congratulated that so distinguished a gentleman has honored us with his presence.

AFTERNOON SESSION.

THE VICE-PRESIDENT, Dr. Shreves, in the chair.

THE CHAIRMAN: According to resolution the first part of this afternoon is to be taken up in criticism upon the papers read. The first then will be upon the paper of Dr. M. R. Mitchell, of Topeka, Kansas, "Asepsis in Obstetrics."

It was then moved and seconded that the gentlemen present, not members of the society, be given the privilege of the floor in discussion. Carried.

THE CHAIRMAN: Dr. L. A. Berger was appointed in case Dr. Woodson was not present, to open the discussion of this paper.

DR. BERGER: In view of the fact that our time will be somewhat limited I will not take up very much of it in discussing this question, but will make a somewhat short resume of the paper read by Dr. Mitchell. The society is to be congratulated that the subject of *Asepsis in Midwifery* has been selected as the first paper. Asepsis is the ground-work of all our work both in obstetrics and in gynecology. The most important truth that is impressed upon us by our experience with antiseptic measures in general and in surgical practice is this, that *cleanliness* is the foundation of all successful surgical and other work. A proposition has been made that every woman who has undergone accouchement is a wounded woman. I would add to that that every pregnant woman is an anæmic woman, and is entitled to the same care and the same attention that is given to any surgical or medical case. The great fault with us in our general work is that as physicians we do not instruct our patients of the necessity of asepsis—of absolute cleaniness. In this lies almost the greatest trouble in carrying out strict antiseptic and strict aseptic measures.

From statistics, not alone in this country but in the London General Hospital, we find that the mortality has been reduced; in the latter from 40 per cent. to 2.5 per cent., and in this country from 20 per cent. to 1.5 per cent. This should be and is evidence to us that asepsis is an absolute necessity. It seems strange that we have not made more progress than we have.

The question whether puerperal septicæmia is due to auto-infection or to hetero-infection is, as you are aware, a mooted one. But granting it is due to one or the other is no argument against asepsis. This infection we know of a surety may be carried by the physician himself. Why is it that to-day without any tremor, with-

out any trepidation, without any fear we go from a case of scarlet fever or diphtheria, or even from a case of puerperal septicæmia to an ordinary case of confinement? Simply because we have a safeguard in asepsis.

We are all agreed, I believe, that asepsis is simply a question of degree. It is simply a question of how one man may carry it out or how another may; but underlying it all is unquestionably cleanliness. The prophylactic measures that we may use I would illustrate by my own personal experience. The conclusions that we reach upon all these questions are based simply upon each and every man's individual experience. At the University Medical College for the past five years, in my obstetrical clinic, which began with some six patients, and in the past year provided for some eighty cases attended exclusively by medical students, we have not had one death. Our methods are based simply upon the same principle that Dr. Mitchell brings forward so plainly. We intend to render those who attend these cases positively aseptic. They may start immediately from the dissecting room to these cases. We provide them with all the means and measures for antiseptic dressings and attention. They are supplied with permanganate of potash, oxalic acid, carbolic acid and bichloride of mercury. Understand, gentlemen, that these cases are taken from every part of the city, including the north end near the river—from the slums if you please to call it so.

When the students arrive they first wash their hands and arms to the elbow in a bichloride solution, then in a saturated solution of permanganate of potash and finally in a solution of oxalic acid. The patient herself is provided, if possible, with fresh, clean underclothing. Very rarely is this the case when they arrive. The patient's limbs and abdomen are washed with the carbolic acid solution and the labia washed and dressed with a bichloride solution. An injection is made also. You understand, of course, that all this is done if there is sufficient time before labor takes place. The injection is of a bichloride solution of 1 to 3000. These directions are faithfully carried out. The gentlemen are not allowed to make any examinations with lard or vaseline or any preparation that the family may have in the house, their hands are dipped in a bichloride or carbolic acid solution. I make no limitations as to the number of examinations. They can examine as often as they wish, but between and before each examination they are compelled to wash their hands either in the bichloride or the carbolic acid solution—preferably the bichloride solution. Furthermore, they are provided with a pad to catch all discharges, both before and after the confinement. After the confinement has taken place the patient is washed and cleansed thoroughly. No injection is made of any of the disinfectant preparations. Ordinarily we use the obstetric binder. The obstetric binder, I will state, is simply a matter of convenience—a matter of preference—and we use it simply to meet a whim, as it were, of the women. The vagina is inspected to see if there are any lacerations. If so, and the laceration be superficial, the attendants are instructed to touch it with carbolic acid. If the perineum is torn or if there is any special laceration they send for me and I attend to that myself. After the patient, thoroughly cleansed, is placed in bed, we use a pad made of bichloride gauze and absorbent cotton. Sufficient gauze and cotton are left, with instructions to the patient to change it every six hours.

This in brief is the method we have been carrying out for the last six years. And personal experience, that which one meets with in daily life, is the best evidence of success.

Dr. Sheldon: The only question I wish to discuss is whether the recommendation of the author as to the use of the douche after every labor, is altogether good. It seems to me, Mr. President, that it is not essential, nor proper, nor advantageous in every case to use a vaginal douche after delivery. If the necessary precautions as outlined by Dr. Mitchell, have been taken there is certainly no indication for the use of the douche. On the contrary, I can readily understand how the vaginal douche can, and often does, convey germs into the vagina and to the lacerated tissues wherever they may be, where they find a proper field in which to develop and grow.

Nature has well provided for cleansing the vaginal canal in the various steps of parturition. Almost continually for

some hours, or even days perhaps, before labor there has been a discharge which has constantly washed the vagina with an aseptic fluid. Then comes immediately or soon before the birth of the child, a flow of an aseptic fluid which further cleanses the canal. Following these, as if they were not enough, we have another process, and that is the passage of the head of the child through the canal, which certainly must further relieve it of infectious matter, if there be any. But that is not all. It seems as if Nature has provided a large cloth or mop, in the shape of the placenta which wipes it again and which with the flow must pretty thoroughly cleanse the canal. Now, as if that had not been enough, Nature provides another step, and that is the lochial discharge that continues for one, two, three or four weeks, as the case may be. It is hardly possible for any germs to enter the vaginal canal and lodge on those ruptured places in the mucous membrane, with all this antagonism to their entrance. We ought to remember, Mr. President, that as soon as the child is born and the placenta is delivered, the vaginal walls close down upon one another and there is no canal for the introduction of germs. It is closed; and this fact, in connection with the lochial discharge, which itself is an aseptic fluid, is eminently sufficient to prevent the introduction of any germs.

Just one more point. Suppose, as is usually the case, there has been more or less laceration of the mucous membrane in the vagina, or about the cervix, or slightly perhaps of the perineum. We do not say that it is extensively lacerated because that comes under another head. But suppose we have a ruptured mucous membrane in the passage. I would like some one to tell me what we are to accomplish by the vaginal douche after the labor. Isn't it a fact that if you use the vaginal douche with an antiseptic of greater or less strength, immediately or in a very few minutes thereafter, the whole surface is again flooded with a lochial discharge? Again, if you use antiseptics or germicides strong enough to destroy any germs that may exist in the vaginal canal, you will use antiseptics or germicides to injure the tissues more than do them good.

Dr. Todd: Mr. President, I want to speak upon a particular point, inasmuch as it appears to me that the speakers as well as the author, have omitted something very important. I wish to call your attention to the fact that, while asepsis or cleanliness is all that is claimed for it by the speakers, something more is needed. Asepsis excludes infection from the outside; but all infection is not hetero-infection. Now I wish to say that, during the labor or about the termination of the labor, besides resorting to these antiseptic measures we should see that the uterus is firmly contracted and that all coagula are thoroughly expelled. We should see that there is a firm contraction of the organ; for in that way these torn vessels are closed so that if a small coagulum remains there will not be decomposition, and the danger of absorption is at a minimum. The idea is to so close these bleeding vessels by contraction that there be no more bleeding, and that even the smallest coagulum shall be expelled. Thus there will be nothing to undergo decomposition and be absorbed by the lymphatics and veins, and asepsis will be preserved. Understand, I do not undervalue the importance of asepsis, but that is not all; and, speaking from an experience covering thirty-five or forty years and extending back to a period long before asepsis was known, I could give a record that would astonish you. Cleanliness was the means by which infection was prevented and the recovery of the patient assured. It would astonish you to know how much could be done without any knowledge of asepsis. But I do not depreciate the value of asepsis at all, for now-a-days, with the aid of all these aseptic precautions, very few patients need die in a puerperal condition.

Dr. Dewees: I wish to endorse in a measure what has been said by the speakers thus far. One point I wish to insist upon and to place myself on record, is that our office as obstetricians, is simply as overseers and helpers. First, as overseers we are simply to watch and see that Nature is doing all that need be done. So long as Nature fulfills her part, so long are we, above all things, not to become meddlesome. As helpers, we are simply to act when we find that Nature is obstructed in one way or another. These offices are fulfilled, as Dr. Mitchell suggested, as to the external part of the woman; but as to the internal douching, I wish most strenuously to disapprove of the procedure un-

less there is a septic condition calling for its use. Once the woman is clean and the physicians' hands are clean, there is no more harm in introducing a hand or finger into the vagina or womb than there is in introducing it into the mouth. As for cleanliness of the hands of the obstetricians, I know of nothing better than the use of cyanide of potassium, the most powerful microbicide that we know. True, it may be dangerous if one has excoriations on the hand, but otherwise it is not dangerous and is an absolute cleanser. Subsequent to that, I use nothing but salt and water. I invariably have a pitcher of hot water brought into the room by the nurse, and into it I put enough salt regardless of quantity, to make a good strong salt brine. I have that covered, and pour a little into a basin as I need it. At the beginning of each examination I dip my hands into it and make my examinations, after which I use clean water and soap.

Dr. Todd: I wish to supplement my remarks by saying how the uterus should be compelled to contract and to expel anything that should come away or that might by remaining decompose and be absorbed. Just at the close of labor I resort, as I presume most physicians do, to the Credé method. But I want to call particular attention to the value of it to compel contraction. I don't leave off compression until the uterus is firmly contracted to a hard ball beneath the hand; and when that is done, I know that there is no coagula lodged in its cavity and no coagula lodged in the vagina. To make sure of this, I am in the habit of allowing my patients to get out of bed to defecate or to pass urine, no matter if it is only an hour after delivery. I allow them to get out of bed or walk across the room; I mean I don't restrict my patient to the bed. Those who do will find trouble from coagula remaining in the vagina. Besides, if put upon the feet the motion will assist the uterus to contract and expel the coagula. By a kneeding with the hands and the motion of the patient you can compel the uterus to completely evacuate its contents.

Dr. Dannaker: Speaking of asepsis in obstetrical practice brings to mind a case of long-delayed delivery, where the amnotic fluid came away at four o'clock in the afternoon. I was called near six o'clock the following morning, and on examination, after going through all the preliminaries, cleansing my hands and the parts—I always carry a fountain syringe with me for the purpose of cleansing the vagina—at first on making an examination I could'nt make out the os, but by putting my finger back I came into contact with the sacrum. Then putting my finger in the os and bringing it forward I could make out the position of the fetus. I applied the forceps, but during all this time I kept the parts thoroughly douched with hot water—no antiseptic whatever,—and brought the child into the world by this process. By this application of hot water to the vagina I had no trouble in the after-recovery of the patient. That is one particular point I want to make when you have those long-delayed deliveries where the amniotic fluid has come away, it is necessary to keep the parts softened, and the only way to do it is by this hot water application.

I wouldn't feel safe in using a carbolized solution any length of time, or a bichloride solution; but by the use of hot water you have all the effect necessary and in addition, you cleanse out the vagina, bring on the contractions and help the woman towards recovery. In regard to vaginal douches after the child has been delivered, and the after-birth discharged, I not only use my finger on the pulse, but use my nose. Every time I come, I lift the bedclothes and use my nose, and if there is the slightest odor I do not hesitate to order the douche, and I administer that douche myself for the purpose of cleaning out the parts. I think it is absolutely essential in all cases where there is the slightest odor. It behooves a medical man to use his nose just as much as a thermometer in those cases.

Dr. Shreves: There is one point I had hoped some member would notice, and that is the use of the vaginal douche prior to the birth of the child. If we take this as good practice, we must acknowledge that Nature made a sad mistake from the beginning. From twenty-four to forty-eight hours prior to the delivery, we find the vaginal tract thoroughly lubricated with a tenacious mucous secreted by the mucous follicles surrounding the tube, evidently the original design of Nature. Now if you use the vaginal wash prior to delivery of the child, you

wash away this lubricating fluid and leave this membrane denuded of that material placed there for its protection. With regard to the after-washings I would take the view of the other gentlemen, and say that it is only necessary when there are indications of septic influence. Especially is this the case where you haven't an experienced nurse. If you have an inexperienced nurse the probabilities are that she is a little bit timid and the water may not be quite warm enough and she may do harm; while if you have an experienced nurse, no harm will come from washing the vagina every day. But unless there are indications of septic influence, and unless there should be a foul odor present, I wouldn't direct my nurse to use the douche every day. But in case there was an odor, whether the nurse is experienced or inexperienced, I would direct the use of the douche if it was not possible to administer it myself.

Dr. Mitchell: I thank the gentlemen for the discussion of the two or three points to which attention has been called, and to which issue has been taken. The first one is in regard to the use of the vaginal douche, either previous to labor or subsequent to labor. It has been objected to because it is not necessary; because it removes an essential fluid used for lubricating the parts, and because it is risky or dangerous. It has been argued that it is not to be used unless it is needed, and that is when you have a septic condition. A septic condition, of course, would necessitate or make proper its use. Now, as I tried to make it appear in the paper, aseptic manœuvers are largely for prevention. If we are liable to have a septic condition, which all the gentlemen have virtually acknowledged, I think that liability is sufficient evidence to prove that precautionary measures should be used.

I cannot see why the douche is, or can be, injurious in any way, especially by removing or washing away the secretions that serve the purpose of lubrication. We know that those glands secrete freely and continue to secrete, and the supply is not wanting when the passage of the child comes. Even if you do use the douche previous to labor, the reproduction of this secretion is not affected and lubrication is plentifully supplied.

As regards the danger of introducing septic matter by use of the douche, if you conduct your procedure with strict care in every particular there is no necessity for introducing any septic material whatever.

I admit that the vaginal discharges are usually aseptic, but very frequently they are not. Why is it that we so frequently have endometritis? It is on account of secretions in the vagina, and I think the majority of women previous to labor have more or less leucorrhœal discharge which is not aseptic and which is liable to become septic on a lacerated surface. I referred to the method of contracting the womb in my paper, but perhaps I did not put enough stress upon that point and I am glad the doctor has presented it. It is certainly one of the necessary and, indeed, the most important of procedures to obtain and preserve aseptic conditions; that is, shutting the doors and preventing the entrance of septic material. Thorough contraction of the womb, and seeing to it that it continues contracting, is a very essential part in connection with aseptic treatment.

I think the use of hot water very good. Hot water is a very good material to use in promoting or in preserving an aseptic condition. In fact, I very frequently use it as a vaginal douche—simply boiled water as hot as the comfort of the patient will admit of.

The Chairman: As Dr. Price has just arrived I will say for his benefit that there has been quite a little discussion upon this paper, and that the privilege of discussion is extended to all present and is unlimited as to time. We shall be very glad to hear from you.

Dr. Joseph Price: I value the discussion of papers sometimes very much more than the papers themselves, and I am very glad to hear the Chairman say that there is no time-limit to the discussions. Unfortunately in our society meetings in the East we have limited the time to three or five minutes. We have been governed very much by the Marquis of Qeensbury rules—three minutes to a round. That men of average experience, who have traveled a thousand miles with the best they have and the best they know, should be rapped down in three minutes is a mistake. But it is so in all our national organizations and in our state societies, and there should really be some stop put to it. It keeps a number of good men away from county,

state and national organizations who have something to say that is valuable and which should be placed on record.

Dr. Mitchell very kindly referred to the Preston Retreat in Philadelphia. It is an institution more than fifty years old. It hasn't that polish and shine about it that the Sloan Maternity of New York, or the Hopkins of Baltimore, have, but the construction and arrangement of the institution is about perfect. In short I feel that most new institutions would do well by patterning after this old one.

It is of very peculiar construction; a large square building with a veranda surrounding at least two-thirds of it. The wards are entered from this veranda; the wards touch the house on one side only and are isolated. It is peculiar in its cruciform shape, favoring ventilation. The plumbing is all outside of the building not inside; at least, it has been so since I have had charge. There is not a pipe in the building. You can all very well remember that the privy was back of the garden when you were boys. Later, it was moved up to the house side of the garden; still later into the back yard; the next move was up *against* the rear of the house, and the next move in the rear of the house just *inside*, and now our houses are simply hoppers to a sewer with the plumbing all amidship. What we call modern sanitary plumbing is tapping the sewer at the first, second and third floors in our homes and residences. There is no reason why all plumbing should not be outside the house by three or four feet, with a circulating atmosphere between the house and the pipes. This should be so in all houses and hospitals. No hospital should have plumbing *in* it of any character whatsoever. *Always* there should be a *circulating atmosphere between* the plumbing and the house or hospital.

Now as to the isolate work of the Retreat. The wards are large, well lighted and well ventilated. In the paper referred to, all of this was dwelt upon at some length. The ceilings are high; the wards are wide, the windows are large and there is an open fire as well as modern methods of heating. The plumbing is distanced. There is a circulating atmosphere at two points between the wards and plumbing proper in the brick piers at the corner of the house continuing from it.

The toilet of the patient is just about that given in the paper. The patients are admitted theoretically two weeks before delivery—a wise provision for a woman approaching the perils of childbirth. This unfortunately has not been so in the maternities all over the world. I think it is simply cruel to admit a woman in labor, and to discharge her on the tenth day—simply cruel. It isn't right, and should be stopped. At the Retreat they are admitted two weeks before, and they may remain four weeks after. You see the period is much longer than in any other maternity. When admitted to the house the patient has a bath—a thorough bath; her soiled clothes leave the building and go to a laundry some distance from the hospital. While awaiting delivery she takes two soap baths a week; the bowels are kept soluble, and if there is a suspicion of any renal trouble, the urine is examined. When she complains of labor pains she is given a soap bath, a vaginal douche of 1 to 2,000 bi-chloride of mercury and an enema, and she enters the delivery room in clean clothing.

The delivery room is cared for by a clean nurse who has nothing whatever to do with the puerperal patients while caring for the delivery room. The nurse and doctor both scrub thoroughly before entering the delivery room. I allow but few examinations and but little meddlesome midwifery. I examine the patient only once and go off and read, or lie down until the head is about ready to clear the perineum. The forceps are very rarely used. The woman and nature still know how to do their own work. The women are permitted to have their own children and I find it a wise if old fashioned practice.

At the present time there is unquestionably, in private and in public, a tendency to make too many artificial deliveries. And just here, had I the time to demonstrate the mischief and evils of the premature application of the forceps or of hasty delivery, I think I could add something at least, to the list of vicious sequellæ of child-bed that we are so often called upon at present to repair. In short I am satisfied that foolish obstetrics is responsible for so many private sanitaria, and for so many gynecologists established over the land. Lacerations are bound to occur. No doubt there were lacerations in Eve's cervix, and may be in her peri-

neum; and in a great many women there have been a great many since, and will continue to be. After delivery of the child, there is delivery of the placenta by the expression method; and then a vaginal douche. This post-partum douche ends all. The ante-partum and post-partum douches are the only douches given.

Now I know very well that some of you practicing in healthy country districts are a little surprised that these douches should be used. The ante-partum douche I value more for saving the eyes of the babies, than I do for saving mothers. I am satisfied that in my own state of Pennsylvania, if every woman delivered in the next ten years should have an ante-partum douche of a one to two thousand mercury solution, it would reduce our blind asylums from ten to one; that ophthalmias would scarcely be heard of. My nurses at the Retreat are just as ignorant of ophthalmia as I am of leprosy. If you should visit that institution and ask an intelligent, painstaking, clean nurse, "Have you any opthalmia?" she would smile and say no; she could not answer your question, or if so she would answer it simply from her knowledge of what she had read. To demonstrate just what the ante-partum douche will do in saving eyes, I will call your attention to three cases—one delivered in the gutter before the house as she stepped from the carriage; another in the hallway on the way to the delivery room and the other while in the bath. There was no ante-partum douche in either of those cases and the three babies had ophthalmia. I know perfectly well while discussing this question, that many of you wonder at the occurrence of ophthalmia and post-partum troubles in a great city, when they never occur in your healthy agricultural districts; but let me say that they do occur in the healthy agricultural districts and in small towns. For instance, the wife of one of my acquintances in Johnstown was recently delivered, and the child was blind in three days. Now had this woman received a careful ante-partum douche and a careful toilet, this would not have been so. The man, the husband, had been unquestionably a victim of gonorrhœa and his wife was contaminated.

In dispensary work—in the alleys and courts of large cities—in railroad towns, the population is largely the victim of specific vices. In healthy rural districts it is not so. You can, as a rule put your finger on the contaminated woman or man in the agricultural districts. It is usually a young medical student, a drover or a drummer; but not among the clean, religious, spotless class of people. I know perfectly well, just as well as you do, from my intercourse with men of large experience and rare good judgment in the rural districts, that all this toilet is not necessary. For instance, I have friends in the valley of Virginia beginning at Winchester and running clear through to Staunton. A cousin of mine tells me that he has delivered fourteen hundred women and never had an ophthalmia, and yet he never gave the vaginal douche. There is Martinsburg, Winchester, Woodstock and other places where I have talked to the doctors in regard to such troubles, and they give me precise knowledge of their own work.

In dispensary work without douches, we have had a large number of ophthalmias. I know early in my own experience in dispensary work, I attended between 150 and 200 women every six months, and had great numbers of ophthalmia cases. Some of them lost their sight notwithstanding I used full strength solution of silver and other things. Taking the baby's head between my knees and going into the conjunctival sac and using a strong solution, I didn't succeed in saving all eyes. At present with seven or eight hundred cases to distribute among undergraduates, the instructions given to students are about as follows: The patient is advised when she applies for some one to take care of her in her confinement, to have her bedroom house-cleaned a few days before she expects to be sick; she is advised to take baths and to keep her bowels soluble. She is told she will be safer if she will have her bedroom house-cleaned a few days before she expects to be sick. We have a nurse that makes a visit to these persons, makes the toilet of the mother and child and goes on to the next patient. The student is told to take a syringe and some tablets or whatever he may be taught. The Jefferson student and the University student are taught very different stuff. He is told to practice what he is taught; to give the ante-partum douche and post-partum douche, and to give it himself; it will be

practice for him and do him good. He commonly gives the douche. He is told to use soap and brush thoroughly before and after each examination that he may make; that he may have the privilege of making examinations, auscultation and palpation and practice touch providing he uses the soap and brush freely; that the patient does not object to it and that she thinks he is painstaking and careful if he does examine frequently; and I make no objection *providing* he uses *soap* and *brush freely*. I find no mischief comes of it. This practical work is of great value to him; the care over five or six cases in the alleys and courts of a large city before he returns to a small town in Texas, Kansas or Tennessee, puts him at ease at his work when he gets home. And out of some 790 cases last year, in 780 there was not a single death from any form of post-puerperal or inflammatory mischief, no fevers, no chills or anything of that sort.

There is a great deal said in Germany about students examining. Some of the maternities take very high ground of recent years in regard to undergraduate work. The position is untenable. The rich have to take care of the poor. You will go into your own pocket books and into your own homes, towns and districts for that purpose; you must have something for it, and no harm can come from good honest work. The general mortality in puerperal fever is large throughout the country—no question about it. It remains large. In some small cities and towns where I have made careful inquiry, I discovered sometimes the mortality was very high. For instance the last eighteen or twenty months some seventy women have been reported in Scranton, Pa.—seventy deaths due to post-puerperal trouble; and in Paterson, N. J., in the last twenty months, some twenty women have died of puerperal fever; and within the last year in Philadelphia, in private work we have had a large number of puerperal fevers; for instance, one dying or dead within a square of my house—dying of puerperal fever. I saw her before leaving home.

Now in regard to irrigation and the use of the curette in post-puerperal troubles. In my own practice I have never had occasion to use either, either in Dispensary or Retreat or in private work. I have never used it except once or twice in intra-uterine irrigation; and I do believe that more mischief than good comes from intra-uterine tinkering. For instance a physician did a very thorough curetting and washed out the uterus, and the next day the patient had a chill and the temperature went to 105°. Now it is very curious that in many of these post-puerperal cases, the temperature goes very high after using the curette and intra-uterine douche. One case that I am referring to, the wife of a physician in our city, was confined during that excessive heated term, and on the third day had a high temperature and I am under the impression it was thermic fever; at the Retreat I had several cases of heat exhaustion. I hadn't a suspicion of post-puerperal trouble; I thought it was excessive heat; I thought they were all thermic fevers and I treated my cases as such and got good results. But on the fourth day they used a curette on this lady I refer to, and the following day she had a chill and her temperature went up to 105°. An additional consultant was called in, and he argued that probably the curetting was not sufficiently thorough and wanted to repeat it; and the use of the curette was repeated with a douche, and still her temperature remained high. Then they agreed to remove the uterus. After removing the uterus, they found a little puddle of muddy fluid in one of the sinuses. I naturally ask you did this little puddle of fluid follow the use of the curette, or did it antedate it? Did it follow the displacing of this clot or sealing this sinus, or did it antedate it? It is my impression that this puddle of muddy fluid, or pus fluid, followed the use of the curette and did not antedate it. Take the cases that you have now in bed—post-puerperal cases—and curette them all, and you will scrape away a lot of decidua vera that you may be pleased to call *debris*, and think that it ought not to be there. Not so; it ought to be there; it is so in every woman; it is a healthy dressing for the puerperal cavity. It should not be a *suspicion* or *guess* that there are some lurking or remaining membranes or placenta that induces you to curette her or douche her. It must be something more than that that makes you use the curette. It must be something *positive* and *definite* that warrants a procedure of that character, and I hold that simply a suspicion or a guess does not war-

rant it. I will say that my practice is not that of curetting or washing the cavity of the uterus where I am unable to put my fingers on something else.

DIRTY MIDWIFERY.

We all very well know that midwifery has never received that attention in private or public that it should receive. Many years ago, you probably remember, a lengthy discussion took place in Dublin, lasting some nine days, where they discussed pointedly the abolishing of the maternities. These were animated discussions indeed. And they did close the maternities all over the country, and from time to time continued to close them. The Queen Charlotte, of London, was closed a number of times on account of puerperal fever, for patients died in large numbers. The New York hospital maternities were closed and scrubbed out, and they tried it again. The Lying-in-Charity, of Philadelphia, and the old Lying-in-Charity of Pennsylvania hospital, were all closed for a time. The mortality ranged from five to some forty per cent. in the maternities. Now, we very well know that the very best work that is done on the face of the earth is done in maternities. When I took charge of the Preston Retreat—not that I wish to pat myself on the back, but I took charge of it to win—I saw no reason why a maternity should not be managed with a nil mortality, and I bent my efforts to that end. I have now delivered over twelve hundred women without a death from any cause, with that prolonged period of confinement of two weeks before and four weeks after, giving me of course a longer period for patients to die than that of any other maternity on the face of the earth, and I have not had a death of any patient either from eclampsia or any other cause. There has not been a death within the walls.

I have alluded to errors in plumbing. Just here I might refer to what takes place in tenement houses. I remember very well some years ago we had a number of tenement houses in the city—one on Front Street that we called the forty family house. The students used to come to me and say,—"Doctor, I have a patient who has had a chill to-day; I wish you would see her with me." I could name four or five houses in which this took place. With the patients who lived in alleys and courts with a cesspool in the rear of the court,—even in small houses, three rooms one above the other, three families in these three rooms — three families in a house—we rarely ever had trouble. Notwithstanding they did a general housekeeping in these three rooms, children sleeping on the floor and man wife in a small bed, it was exceptional to have any post-puerperal trouble in this illy-ventilated, dirty little room. But in the old tenement houses with the plumbing amidships, between the first, second, third and fourth floors, puerperal troubles always occurred. I made this statement five or six years ago in Newport, and it brought the distinguished obstetrician Lusk to his feet who said Dr. Price's statement corresponded precisely with his own observation; that he had made that observation frequently, and maintained that the plumbing frequently had much to do with post-puerperal mischief.

Night before last, when I left Philadelphia, I noticed behind me on the cars, three crying children. It troubled me. There was a distressed-looking man wrestling with these three children. The porter came by and I said—"Porter, is that man's wife dead?" He said—"I don't know, I'll find out." The porter got a glass of milk for the children, and made every effort to quiet them, and then asked the man if his wife was dead. He said—"Yes, she died three days after child-birth." That had as much to do with me taking part in the discussion as anything else; because I have discussed it so often that I sometimes think that I tire you, and some other subject would be much more welcomed; but I knew too well how exceedingly distressing this subject has become. I insist that hereafter the whole profession pay more practical and theoretical attention to this subject of paramount importance. We are all fathers and we should think more of the perils of child-birth and the care of tender mothers.

DR. DANNAKER: I would like to ask Dr. Price what covering the walls have in the Preston Retreat?

DR. PRICE: Paint only.

DR. DANNAKER: Not calcimine or whitewash?

DR. PRICE: No, sir; paint only. Just painted and washed.

Dr. Dannaker: Do you give the vaginal douche while she is taking the last bath ?

Dr. Price: There is no douche until she commences labor.

Dr. Dannaker: Do you have an inflow pipe in the room ?

Dr. Price: No, sir; tea-kettle in the delivery room; never leaves it. The delivery room is large and wide. On the bed there is just a clean hair mattress with a macintosh to cover it, and two clean blankets. She has her bath and her vaginal douche—glass douche-pan. This bath is outside of the delivery room. Before taking the bath an enema is given, and she evacuates the bowel before she enters the delivery room. The nurse makes her toilet—puts on a clean apron—makes her toilet entirely. She is not even allowed to keep her tooth-brush in the same mug with her hand-brush. I only allude to this to show you how far military discipline goes. It should exist in every hospital. If you can't have military discipline you don't have any discipline. I believe every doctor and surgeon should be a West Pointer for a while. It would do him good, particularly the surgeon and his assistant. I allow but few examinations; no washrags and no sponges; there is not a sponge or washrag to be found in the house, but we use corrosive jute—marine jute prepared chemically. You perhaps think I am *ultra* in my cleanliness or in recommending such a toilet, knowing, as some of you do, that I condemn all chemical solutions in surgery except for the purpose of obtaining cleanliness. Surgical cleanliness, if you can obtain it at any cost and by any means do so—chemically or by soap and water; but keep away from all surgery all irritating chemical solutions. For instance carbolic acid gives a variety of troubles. Mercury does pretty nearly the same thing. Carbolic acid gives you that numbness and tingling that is noticeable in sclerosis of the cord, and gives you a non-surgical hand as well. A mercury hand or carbolic hand is not safe from two points of view; being an irritating hand, and not being a perfect tactile hand. Chemical cleanliness in surgery or midwifery is the purest sort of cleanliness; hence I use corrosive jute. The sponge is exceedingly difficult to clean; it takes days or weeks to clean it properly. The surgeon only should clean his sponges, and nobody else. Corrosive jute is the cleanest material you can use.

Dr. Todd: Prepared by whom ?

Dr. Price: Prepared by Johnson and Johnson. It is nice and as soft as silk. You can make it into little washrags, and while the patient is in labor, a little washing about the vulva and about the bowel is all that is necessary. Now the delivery room contains two basins, two pitchers, scrubbing brush, tea-kettle and a gas stove. That is all. Those pitchers only leave the room to be filled with water, that is all. Those pitchers, tea-kettle and basins are used for no other purpose. Sometimes in private I feel at a loss for the simplicity of the delivery room; but you can have in private, just the same simplicity at little or no expense. For instance, the patients at the Retreat will change beds thrice. When admitted, a single hair mattress; when delivered, single straw mattress; when convalescent a wide hair mattress. Now you say you can't go to that trouble or expense in a small city. I think that is a mistske. A woman comes to you and asks you to take care of her during confinement, and probably she has a bed fifteen years old in her room. It will be a very simple matter to have three bundles of clean rye straw with a blanket folded over it, and a draw-sheet over that; that makes a good clean bed. Surely better than a bed saturated with urine. Perhaps one on which two children have died from scarlet fever or diphtheria. It is unsafe; it is contaminated and should not be used for childbirth. I know that some teachers condemn the straw bed. Parvin objects to it in a maternity. But you can buy one, or two, or three tons of clean rye straw, store it in a dry place and the beds can be made up and placed in a dry room, as dry and sweet as can be and will never become contaminated. We use as a cover simply a clean mackintosh with four thicknesses of blanket over it. I never allow anything to have a spot on it. The nurses are instructed to make their toilet before touching the patient, and to repeat that toilet before touching patient No. 2, and to repeat it again before touching patient No. 3. They are instructed to remove the draw-sheet and bed gown whenever it has a spot on it. Don't spare the laundry. There has always been a peculiar state of

affairs in maternities and hospitals that I can never understand, namely of sparing the laundry and laundry women and soap and water by changing sheets once or twice a week. Why, if forty times a day there is a spot on draw-sheet or bed gown, it must come off. And that holds precisely the same in the maternity as it does in my private hospital where I have to pay for it myself. And I think that we will all come to it after while, that we will have a Sunday morning laundry.

CORRESPONDENCE.

"INNOCENTS ABROAD."

EDITOR MEDICAL AND SURGICAL REPORTER:—I have been a subscriber of your journal for some years, during which time I have found few articles to criticise, but "Innocents Abroad" in the number of February 11th, I think is calculated to do a great deal of harm, inasmuch as it tries to make it appear ridiculous for a physician to visit Europe for post graduate work.

Now as I have had the pleasure of such instruction I cannot think it but producing a false impression that any such course in a European University is time wasted or that the American physician goes to Europe "to sit at the feet of some stupid privat-docent."

The great mistake is in any person going to a foreign university when he is not acquainted with the language spoken, and where his time could be better spent in New York, Chicago or Philadelphia.

Puffing at a meerschaum "unter den Linden" is not studying medicine.

During my stay in Prague in the Lying-in-Hospital, where in the two departments they have from forty to fifty births daily, I had advantages which are not to be had for money here, and the amount of fees paid in did not exceed twenty-five dollars.

The Rotunda in Dublin does not offer such obstetric advantages.

It seems to me that before any medical journal should pooh-pooh European Post Graduate courses, that they should furnish like advantages here.

The American people know a thing when they see it, and if the advantages there were not superior to our own they would not go that distance to procure them.

The writer of "Innocents Abroad" must know that neither the University of Pennsylvania, Jefferson, or Harvard, can furnish any such obstetric advantages as before described, and those given are monopolized and overrun.

A physician going to Europe if he knows where to apply, can get advantages not dreamed of in America.

Where in America can we find such a clinic for veneral and skin diseases as are furnished by Profs. Neumann and Kaposi, of Vienna?

The immense material for skin diseases, nose and throat, and surgery in Prague are not used by the foreigner, not on account of the names of Prof. Pick and Gussenhauer being unknown, but because so few know of the immense advantages offered in that city.

My advice to any German-American physician is first to practice a few years after graduating and then take post graduate work either in Prague, Vienna or Berlin, according to the advantages wanted.

If such a physician goes and uses his time properly, it will take a great many such articles as "Innocents Abroad" to make him believe that he has wasted his time, or that the same advantages could have been procured here.

O. C. STRICKLER, M. D.
New Ulm, Minn.

"Madam," said the doctor in answer to the earnest inquiry of his patient, "you are suffering from a complication of disorders, the exact nature of which can only be ascertained at the post-mortem."

"That is a very fine dog you have, Johnny."

"Yes, but he is consumptive."

"Consumptive! Why do you say that?"

"He's Spitz blood, you know."—*Ex.*

NEW YORK LETTER.*

At a recent meeting of the New York County Medical Society Dr. T. A. Emmet read a paper on "The Means of Success in Gynecological Plastic Surgery." He mentioned in the beginning, that while the fad for abdominal surgery had materialized a large number of expert laparotomists in this country, the skill requisite for plastic work had been almost lost. There is both lack of dexterity in operating and incorrect ideas of what is to be accomplished, hence many dismal failures result. In his paper he claimed that but one plastic operation should be undertaken at one sitting, and that many failures were due to the fact that two or three operations were performed at the same time. When only a single operation is done there is a much better chance of obtaining union by primary intention. He said the cause of the troublesome symptoms in laceration of the floor of the pelvis is a lack of support to the blood-vessels. Several years ago Dr. Emmet devised both the butterfly and the trefoil operations and he claimed that these, with the recent modifications he has added to them, will repair the damage; but that the dash-board-like obstruction put up at the vaginal outlet by some operators has not been successful. While he has always been able to repair any injury to the female genital tract, produced by usual causes, he has had much trouble in repairing those injuries left by poor surgery.

Dr. Emmet says that he owes his success in operations about the female genitals to the use of the silver-wire suture, which is not only a suture but a splint; nothing but silver wire should be used in plastic work about the vagina.

In the discussion that followed Professor Munde classified the essentials of success in plastic surgery about the female genital organs under the following heads: (1) Proper selection of cases. (2) Proper selection of time for operation. (3) Proper preparation of the parts. (4) Perfect asepsis including strict cleanliness, but avoidance of very strong germicides. (5) Rest, yet early movement of the bowels. Dr. Munde disagreed with Dr. Emmet in the necessary use of the silver-wire suture. He has employed with success, silk in the anterior vaginal wall and silk-worm gut in the perineum. He also said that more than one operation could be done at a time, and that he has often saved women much time, pain and expense by performing several operations at one sitting.

★ ★ ★

At a recent meeting at the Academy of Medicine, of the Section on Obstetrics, Dr. J. Harvie Dew read a paper describing his method of resuscitating still-born children. The method is original with Dr. Dew and because of it's simplicity has taken precedence of the harsher and more dangerous methods of Schultze and of Schroeder. Dr. Dew has employed the following method since 1871. He grasps the newly born babe with the left hand, the neck resting between the thumb and fore-finger, with the head falling far over backward, thus elevating and holding open the epiglottis by means of stretching the larynx and the trachea. The upper portion of the child's back rests in the palm of the hand; the other three fingers rest in the left axilla, raising the shoulder upward and outward. He grasps the right knee between the thumb and forefinger of the right hand, the left knee between the fore and middle finger of the same hand; thus the back of the thighs rest on the palm of the hand.

With the infant in this position the pelvis and lower extremities are depressed, and with the left hand the upper portion of the spine is greatly forced backward. This process draws down the diaphragm, thus enlarging the thoracic cavity and produces inspiration. Expiration is brought about by reversing these movements. The left hand carries the shoulder and chest forward and the right hand raises the pelvis and strongly presses the thighs against the abdomen. Thus the thoracic and abdominal viscera are forcibly crowded together, and a perfect expiration is executed. This process is repeated until the child breathes.

Although the process is powerful it can be produced without injury to the delicate tissues or viscera of the child.

The author of the paper said that many years of experience in the obstetrical field had proved to him that his method was

*Special Correspondent to MEDICAL AND SURGICAL REPORTER.

the most efficient and uncomplicated one of working articificial respiration. It is not tiresome to the operator, and can be kept up with the child immersed to the neck in water.

In the discussion which followed, Dr. G. T. Harrison said that he could truthfully vouch for the efficiency of Dr. Dew's method; that the process fulfilled the three indications in asphyxia of the child; it freed the air passages of mucous and whatever the child had inhaled in the way of foreign bodies; it carried air to and from the lungs, and it stimulated the movements of the heart. He said that the Schultze method was dangerous, particularly in the hands of a beginner or an awkward physician, as fractures, dislocations, and injuries to the thoracic and abdominal viscera often resulted from the violent handling of the child which the method necessitated.

Dr. Grandin said that he considered Dr. Dew's plan of very great value, and that he spoke from experience, having tested it in a large number of cases.

Professor Lusk stated that it was an excellent method and because of its simplicity and good results should be extensively practiced. He said that shortly after the child was born the use of a catheter to inflate the lungs was a good procedure.

The Hygienic Institute of the University of Berlin has published the following conclusions, after repeated experiments made with relation to the spread of the cholera germ through cigars and tobacco.

The comma bacilli of cholera Asiatica die through drying up on dried tobacco leaves even quicker than through drying up on glass, and in this condition they die in an hour on an average. On moist tobacco leaves the comma bacilli do not increase, and are killed after a short time. The comma bacilli were not proved to exist in the examples of cigars manufactured in Hamburg during the prevalence of the epidemic. Through the fermenting and drying processes which cigars must undergo before they are ready for shipment, the cholera bacilli are killed after a short time, even when packed by way of experiment in the linen bands about the cigars. Tobacco smoke checks the development of cholera bacilli and is quickly fatal to them.—*Phar. Era.*

Cuneihysterectomie—A New Operation for Flexions of the Uterus.*

Thiriar reports a case of a cure of anteflexed uterus by operation under the above name. Having borrowed the idea from the operation of Osteotomie for genu-valgum. After opening the abdomen he draws up the uterus, then resects an elliptical portion, 2 cm. in width, which extends down through the muscular structure of the uterus to, but not into, the mucous membrane. This section is removed at the point of flexion. The uterine wound is sewed with catgut and the abdomen closed. An iodoform tampon is placed into the vagina, presumably, to hold the uterus in position, until the cure is established. Thiriar has reported his case as having remained cured for two months after which he lost sight of her. [This certainly seems to us a heroic measure for the relief of an anteflexed displaced uterus. It would be interesting to know the future history of such a patient including a possible pregnancy.—Ed.]—*Annal. de gynécol.*, 1892. Oct. p. 26.

A Costa Rican Costume.

The doctor, the author, the farmer and I were talking of travel in far foreign lands, the most entrancing topic of conversation on earth, and the doctor told this story:—

In the Spanish American countries, it is customary for servants and young people to go about in the hot weather almost naked, though they usually wear hats on account of the glaring sun.

One day a Costa Rica grocer sent his boy to deliver some goods purchased by a family newly arrived from more inclement latitudes. The boy was wearing a sore toe and a brunette smile. When he returned he brought the grocer a note, vigorously objecting to his attire or lack of it.

"Caramba!" said the grocer sternly. "You young villain, don't you ever go to that house again without putting on your hat!"—*Ex.*

Patient—"Doctor, let me know the worst."

Doctor—(absent mindedly)—"Your bill will be two hundred dollars."

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* Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

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SATURDAY, MARCH 11TH, 1893.

EDITORIAL.

THE REDUCTIO AD ABSURDUM.

DEPARTMENT OF PUBLIC CHARITIES.
PHILADELPHIA, March 2, 1893.

To the Board of Management of the State Hospital for Insane for the Southeastern District of Pennsyluania:

Gentlemen:—At a meeting of the Board of Public Charities of the Commonwealth of Pennsylvania, held yesterday in Harrisburgh, the following preamble and resolutions were unanimously adopted:

WHEREAS, This Board at its meeting in December last considered a report presented to it by the Chairman of the Committee on Lunacy, and authorized its transmittal to the Board of Management of the State Hospital for Insane for the Southeastern District of Pennsylvania, and

WHEREAS, It is evident that that portion of the report setting forth that the management of said hospital were permitting surgical operations of an experimental nature to be made upon their patients is incorrect, and based upon erroneous information, and

WHEREAS, No surgical operations of such character have either been performed or proposed at this Institution, therefore be it

Resolved, That the Board hereby withdraws said report transmitted as aforesaid, and further

Resolved, That, as the said report was made public without its sanction, this Board waives any objections to the management of the Norristown Hospital making public these resolutions in any manner they may deem proper.

Yours very respectfully,
CADWALADER BIDDLE,
General Agent and Secretary.

These resolutions which are in answer to a communication from the Board of Trustees of the State Hospital for the Insane, at Norristown (given in full in the last issue of THE REPORTER), command respect and admiration.

Perhaps it is not infrequent for such a body as the State Board of Charities to find out that they have made an error, but it certainly is rare for such a body of men, after being misled by their own agents, to frankly acknowledge their mistake, and so speedily to rectify it.

The State Board of Charities deserves the fullest commendation for this last action. Their communication is a digni-

fied acknowledgment of an error committed, an honest expression of regret, and a prompt rescinding of an injudicious action. It is more. It is an indignant repudiation of the men who misled them, and the methods by which they were deceived.

It can readily be understood how the Board were led into this action by their Committee on Lunacy, when it is remembered that the Board is compelled to rely largely upon its professional members for opinions on technical questions. This fixes the responsibility upon the Committee on Lunacy. Fortunately for some members of the Committee on Lunacy the responsibility can be narrowed down still further. Three of the five members of the Committee supported the passage of the above resolutions; the other two—the professional experts— were too busy to attend the last meeting of the Board, after finding that body not disposed to "quietly drop the matter." This fixes the responsibility upon the professional experts.

A typical *reductio ad absurdum.*

The serious side of the question being thus disposed of, leaves only the amusing for contemplation, and as it would be unfortunate for the cause of Professional Philanthrophy to allow the arduous labors of the Professional Reformers to be utterly lost, the following suggestions are offered for future guidance:

Nations and tribes of men differ in their treatment of the insane in so much as they differ in civilization. In some parts of Africa they dispose of the question *cito, tuto et jucunde.* When one becomes old, feeble or insane loving hands carry her out and deposit her in a convenient place to become food for wild beasts. The state or tribe is thus spared any expense and the consciences of philanthropic lawyers are not rasped by *cruel operations.*

In Australia, among the natives if a lunatic becomes troublesome they simply go into executive session, and knock him, her or it in the head with a club. The question as to whether insanity is a disease or the result of disease is not entered into at all. The remedy is a specific for all forms of mental alienation. Pathology is ignored, prognosis is assured and treatment is routine enough to satisfy any committee on lunacy or its legal members. If these patients have tubes or ovaries tender, inflamed, adherent, degenerated, metamorphosed or decomposed "allee samee Melican man," they can keep them.

They never raise the question of objectionable mutilation after recovery.

The "legal member" has given his august opinion that neither a patient, nor her guardian or relative can give consent to such an operation, for fear that she might be cured and then object to her mutilation.

What is to be done with our insane friends if this dictum of Dogberry holds good? The rule will apply to any other form of disease and, as no surgeon will be permitted to operate without the consen of some responsible person, and no one can by law give his consent, there is but one thing left to be done.

Philanthropists will have to furnish the "legal member" or some other professional humanitarian with a good large club, and turning him loose among these unfortunates, let him treat them after the Australian plan. Everything will then be lovely, all expenses to the state be saved, and the "l. m." become the hero of his dreams.

A physician's library and instruments are exempt from execution. The insurance on the same is also exempt. So says a recent Supreme Court decision.—*Ex.*

Bellows—I don't believe you are anything of a doctor.

Dr. Surekill—Just ask my patients.

Bellows—I don't speak the dead languages.

TRANSLATIONS.

THE TREATMENT OF DIPHTHERITIC ANGINA BY CHROMIC ACID.†

Lescure (*Jour. de Mèd. de Paris*, Feb. 12, 1893) remarks that it is now clearly proven that the infectious manifestations of diphtheria are due, not to the invasion of the organism by the bacilli—even in the most rapidly fatal cases they are not found in the blood—but to the absorption of a toxine of peculiar virulence, secreted by the bacilli, which quickly spreads throughout the entire organism. The problem, therefore, reduces itself to the destruction of the false membrane (that is to say, the laboratory whence the microbe launches into the circulation the fatal toxines) before a sufficient dose to cause death has penetrated into the economy; this is the local treatment. As this dose ought evidently to vary with the resistance of the subject, it is necessary at the same time to increase this resistance; this is the general treatment. In other words, the treatment should fill two indications: 1. To destroy the false membrane, that is to say, to prevent the production of the toxines, *as quickly as possible;* 2. To combat the effects produced upon the system by the toxines which have already entered the circulation at the time of intervention.

Destruction of the false membrane may be accomplished by touching it with a solution of chromic acid, 40 to 100, repeating this once, twice, and very rarely three times in the twenty-four hours, according to the gravity of the case. At the same time the adjoining mucous membrane should be sterilized by painting it with tannic acid, six grammes to thirty of glycerine, repeated three or four times in twenty-four hours. At the same time also, the tincture of eucalyptus should be administered in three to ten gramme doses in the twenty-four hours according to the age. The general treatment consists of alcohol, nux vomica, quinine, milk, coffee, tea, suralimentation and oxygenation.

DESTRUCTION OF THE FALSE MEMBRANE, OPERATIVE TECHNIQUE.

The physician should supply himself with a caustic solution of chromic acid, 40 to 100. The application of weaker solutions is without result. The child, enveloped in a blanket, the arms extended on the body, is seated upon the knees of an assistant who faces the operator, and with his right arm supports the child, while with his left hand he supports the brow, immobilizes the head and holds it against his heart. On a table or chair to the right hand of the operator are placed: 1. A saucer containing some drops of the chromic acid solution and a small stick; 2. A glass half full of a soapy coal-tar solution diluted with water and containing a charpie mop. With the left hand the tongue depressor is introduced into the mouth of the child and pressed upon the base of the tongue. There is thus obtained a sufficient depression of the lower jaw to permit of easy exploration of the posterior pharynx. The mop charged with two or three drops only of the chromic acid solution is taken in the right hand and the false membrane is touched rapidly and lightly in order to avoid the healthy mucous membrane. The yellow coloration of the coated surface indicates that the application has been sufficient. This operation need not consume more than three or four seconds. The tongue depressor is now cleansed and the mucous membrane is matted out with the coal-tar solution two or three times. This neutralizes the excess of acid, and also has another action. The liquid uniting with the excess of acid forms a diluted solution which has a styptic action, and which produces around and upon the false membrane an albuminous precipitate which should carry with it a large portion of the toxic substance secreted by the bacilli and covering the mucosa. In the light cases, taken at the beginning when the false membrane has as yet but slight degree of thickness, one or two operations usually suffice to destroy it. In grave diphtheria it is necessary to renew the treatment several times; but rarely are more than three applications required in the twenty-four hours. In every case it is necessary to repeat them until the false membranes have disappeared. Under the influence of this treatment the false mem-

†Translated for The Medical and Surgical Reporter by W. A. N. Dorland, M. D.

brane does not disintegrate, but on the contrary it condenses, contracts, diminishes in extent, disappearing at the edges, and ends by coming off in one piece without leaving a subjacent wound, during one of the applications of tannin.

This employment of chromic acid in a dose so concentrated may seem daring to the first degree; nevertheless, it is exempt from all danger, and Lescure has employed it exclusively for five months without any disastrous consequences. This is explained by the valuable property possessed by this acid of not extending its action superficially beyond the point of application, and in depth beyond the thickness of the layer of liquid applied. Moreover, eminent practitioners such as Magitot and Isembert, have used it successfully in affections of the mouth, and even have applied it to the larynx. It should undoubtedly be used with prudence and the applications made lightly, but by employing only the quantity of acid strictly required no danger will be done to the neighboring tissues.

STERILIZATION OF THE SURROUNDING FIELD.

For this purpose a glycerole of tannic acid may be employed, six grammes of tannin to twenty grammes of glycerine. Three or four paintings are made in the twenty-four hours, only one of which is made during the night. As an adjuvant to the direct sterilization obtained by this method, the tincture of eucalyptus may be given internally, three to ten grammes daily according to the age. This agent is eliminated largely by the mucous membranes, and by giving it in repeated doses every second hour its exhalation by the respiration is continuous as shown by the odor of the breath, and consequently the bronchial, tracheal, laryngeal and pharyngeal mucous membranes are constantly bathed in a material which not only is hostile to the multiplication of the bacilli and the propagation of the false membranes, but which also hinders the absorption of the toxines.

General Treatment.—The general treatment comprises two indications: 1. To sustain the general state of the patient so as to combat the poisoning; 2. To facilitate the destruction and elimination of the toxic products already absorbed. To meet the first indication an alimentation at once reparative and light; must be insisted upon; bouillon, broths, beef juice, eggs, chocolate, purees, creams; at the same time the asthenia is met with nux vomica, quinine, alcohol, Bordeaux wine, Malaga wine, cognac, or rum, from thirty to sixty grammes in the twenty-four hours. To facilitate elimination of the toxic products by the renal emunctory, milk, coffee, tea, are given to the child, and in these the cognac or rum is given. Finally, the combustion of toxines in the blood is facilitated by increasing the quantity of oxygen absorbed, and for this purpose the most thorough ventilation possible is insisted upon, all the windows being opened to permit the rays of the sun to enter. Experience has shown the valuable effects of this practice.

Formulæ:—

℞ Acid Cromic..... ..2 grammes.
Distilled Water.....5 "

℞ Tannic Acid..... 6 grammes.
Glycerine.....30 "

℞ Tinct. Eucalyptus.....3 to 10 grammes.
Gum Arabic Water.....90 "
Syrup of orange peel.....30 "
To take in teaspoonful doses in the twenty-four hours.

℞ Tinct. of Nux Vom..... *x* drops.
Ext. of Quinine ..... 5 grammes.
Malaga Wine.....200 "
Syrup of orange peel.....100 "
Three tablespoonfuls in a day.

The tincture of nux vomica should be given in such a way as to give the child at least three drops in the twenty-four hours. This dose may be raised to five, six or eight drops according to the age.

Results:—The number of cases treated to date by Lescure is fifty-four. He has not had a death. Among the fifty-four cases, five presented the characteristics of hypertoxic or rather infectious diphtheria, the diphtheric bacilli and the pyogenic streptococci of Barbier being mixed. The false membranes were soft and very thick, of a pale color, face swollen and livid, enlargement of the glands and edematous enlargement of the neck, fetid breath, severe pain, intense fever, albumin in the urine, somnolence, a very pronounced general asthenic state. The patients were twenty-seven months, three years (two), four years, and seven years of age. The duration of the sickness was from nine to fifteen days.

ADVANTAGES OF THE TREATMENT.

1. *The rare intervention and short duration of each application.*—The applications of chromic acid are only needed

once or twice in the twenty-four hours, and the paintings with tannic acid only three or four times. The applications therefore, are made only every three or four hours at the most. This permits the saving of the forces of the child and permits it to sleep.

2. *Absence of pain.*—This treatment is absolutely painless and does not determine any inflammatory reaction in the throat.

3. *The integrity of the mucous membrane is absolutely guarded.*—The false membrane in falling off under this method of treatment does no leave any raw patches which may act as ports of entrance for the poisonous products.

4. *Finally this treatment is very easy of application.*—While the applications should always be made by the physician himself, as generally there are only one or two in the twenty-four hours this can readily be satisfactorily arranged.

ABSTRACTS.

A FEW PLAIN WORDS ON GLAUCOMA.

The relatively large number of cases of absolute and hopeless blindness from neglected glaucoma coming under my observation, writes Dr. Lewis, of Raleigh, N. C., has suggested to me the propriety of making an effort to do something in the way of prevention of such sad occurrences. Blindness from this cause is peculiarly deplorable for the reason that the afflicted one is not only cut off from all perception of light—even a deprivation that only the blind that retain the power of discriminating between day and night can fully appreciate—but is a sufferer, in many instances, from repeated and long-continued attacks of severest pain.

For our purpose it would be best to consider only the three ordinary forms of the simple or chronic, the subacute and the acute inflammatory. The symptoms common to all forms are failure of sight, increased tension or hardness of the eyeball, dilated pupil, and contraction of the visual field especially toward the nose. The most characteristic of these is increased tension, which is to be ascertained by gently palpating the globe through the upper lid as the patient looks at his feet, very much in the same way as for pus in a suspected abscess. If not familiar with the feeling of the normal eye, a comparison should be made with the other eye, if unaffected, or with the examiner's own. The next most important symptom is dilatation of the pupil, particularly if it does not respond to light. A fact of great assistance in a negative way, in helping to a correct diagnosis, is that the subject of glaucoma is almost sure to be past middle age, or old enough to wear spectacles for reading. And the first thing one suffering from chronic glaucoma, as a rule, notices is that his spectacles do not suit him as well as they once did, and that he cannot find any that will bring his sight up to the original standard. The need of frequent changes in his glasses is often a premonitory sign. He will then complain that at times there is a fog or haze over his sight, lasting for a greater or less period and then passing off entirely for a while, only, however, to return again at shorter intervals, denser in character and hanging over him longer. While this fog is present he will tell you, usually, that when he looks at a lamp or other light it seems to be surrounded by colored rings haloes or rainbows—a phenomenon only found in glaucoma, except when produced by mucous on the cornea, which can be easily removed by winking. Pain, if present at all, will be slight and occasional. A superficial inspection of the eye will show the sclerotic white, the cornea clear and bright, and, in a word, the eye perfectly normal in appearance, save a slight dilatation and some sluggishness of the pupil. The tension will probably be a little increased, and the field of the vision somewhat narrowed.

In the subacute form, after, in all likelihood, a few premonitory attacks embodying the symptoms just enumerated as belonging to the chronic, there will be a more rapid failure of sight—pain in, but chiefly around, the eye, over the brow, in the temple, down the side of the nose, and, sometimes, all over the side of the

head, will be complained of—the globe will be very distinctly hard—there will be some redness of the ball, or rather dusky character, most marked just behind the sclero-corneal junction—the cornea will look rather steamy—the anterior chamber will generally appear shallow, the pupil will be dilated and probable oval in shape, and, instead of being black, it will be of a yellowish green color.

The acute form is simply an exaggeration of the subacute. The onset is more rapid—the tension greater—the pain more severe—the redness more intense, in some instances extending to the whole conjunctive with a swelling of the lids—occasionally there is a photophobia—the pupil is more widely dilated, though not necessarily *ad maximum*, and fixed—the cornea looks more hazy and insensible to the touch of a light, soft object, as a feather or wisp of tissue paper—and sometimes there is fever with nausea and vomiting. Inasmuch as the mistake has been made, I will take the liberty of saying that should you have a case of supposed remittent fever, who, at the same time, has had a bad eye, do not be satisfied with your diagnosis until all doubt as to the nature of the ocular trouble is removed, and *do not wait for him to recover from the fever, or "bilious attack," before attending to his eye.*

The diseases with which inflammatory glaucoma might be confounded are iritis, conjunctivitis, cataract, inflammation of the cornea, and neuralgia. There are many resemblances between acute iritis and acute glaucoma, and there are many differences, but the similar features, unfortunately, are of a coarser and more easily recognized character than the dissimilar. In order to avoid confusion, I will rest the differential on two symptoms, or signs, only—the state of tension and of the pupil. While in iritis the tension is sometimes increased, it amounts to practically nothing, but in glaucoma it is the pathognomonic symptom, and in the inflammatory form—with which alone iritis could be confounded—it is almost certain to be very distinct and pronounced. The pupil in iritis, if changed at all in size, is smaller than the normal, but in glaucoma it is almost invariably larger than natural, and, in an immense majority of cases, very much larger. If in doubt compare with sound eye, should there be one or with a healthy eye in another individual of about the same age and in the same light. Never fail, therefore, to examine more carefully the pupil in every red eye belonging to an elderly person, and particular if that eye be free from a mucopurulent or purulent discharge—the presence of this discharge being the characteristic symptom of conjunctivitis.

In conjunctivitis the redness of the globe increases from before backward, while in glaucoma, as well as in iritis just the reverse is true. In conjunctivitis, too, the sight is scarcely, if at all, impaired —in glaucoma it is apt to be very bad.

It is of vital importance that glaucoma and iritis should not be confounded with one another, for the remedy appropriate to each is generally positively injurious to the other, in some cases actually exciting an attack in a healthy eye predisposed to that particular affection. If the pupil be carefully examined and its size noted the mistake in the application of remedies could not well be made, for it is the most elementary common sense, it seems to me, for every one using remedies directed to the pupil to attempt to contract a pupil that is too large and to dilate one that is too small. Attention to this simple rule would insure practically the use of a myotic, eserine sulphate or pilocarpine muriate, in glaucoma, and a mydriatic, atropia sulphate, in iritis.

Having made the diagnosis of glaucoma its early management is very simple. It consists in the *immediate* use locally of a myotic, sulphate of eserine, a drop or two of a solution of a strength varying from one to four grains to the ounce, or pilocarpine of double that strength, in the eye every hour until the pupil contracts, pain is relieved and sight improved, and continued afterwards three or four times a day until the trouble has passed off. Hot applications, purgatives, hypodermic injections of pilocarpine, etc., are sometimes helpful, but such uncertain palliatives should not be depended on, except only when nothing better can be done. Should the pupil not respond to the myotic and a marked alleviation of the symptoms occur in twenty-four hours, or if its use increase the pain and inflammation, as it sometimes does, an iridectomy or sclerotomy, preferably the former, in my opinion, should be done at the earliest possible moment. Acute glaucoma is a disease

that allows no dallying in its treatment—the price of sight is *promptness*—and, eserine or pilocarpine failing, the knife is the only hope.—*Charlotte Med. Jour.*

THREE CASES OF PUERPERAL ECLAMPSIA.

Dr. John Marriott reports three cases:

Case 1. June 2d, 1890. Patient aged 39, a XI para. The author was told that she had ten violent fits during the night and had not spoken for hours. He found her in deep coma and tongue badly bitten. Cyanosis was extreme and she breathed with difficulty. The pulse was feeble and intermittent. Urine drawn by catheter proved to be highly albuminous. There was no sign of commencing labor As she immediately afterwards had two more fits and was evidently in a desperate condition, the author proceeded to attempt delivery. The os was fortunately soft and yielded to digital dilatation so that in about twenty minutes he was able to turn, and in about another quarter of an hour both child and placenta had been expelled. The patient flooded violently and, unfortunately, the author had no ergotine with him and she could not swallow. The hemorrhage was arrested by hot water injection. The child did well. The mother lay in deep coma for several hours, but had no more fiits. She recovered without a bad symptom. After a few days the urine was found to contain no trace of albumen. She has remained in good health ever since, earning her living as a washer-woman.

Case 2. August 29, 1891. The patient, aged 21, had five fits in two hours. She had been ailing for some weeks, anemic and suffering from dyspnœa, but her condition was not suspected. The author found her unconscious with a portion of the tongue bitten clean out. Finding the vulva œdematous and the legs slightly so, he drew off the urine and found it nearly solid with albumen. She appeared to be about four months pregnant and the fœtal movements were perceptible. Soon afterwards she had another fit during which respiration ceased and was with difficulty re-established. He placed two drops of croton oil on the tongue and administered a little chloroform, proceeding then to dilate the os with the finger. The cervix was long and very rigid, but in nearly an hour he succeeded in introducing six laminaria tents. After this she had no more convulsions, but came round sufficiently to a full dose of chloral. The oil acted vigorously and labor pains came on regularly. When the tents had been in twelve hours the author removed them and the fœtus immediately followed. There was no difficulty with the placenta and no hemorrhage. She had complained much of headache and giddiness for the last two hours, but was quite conscious. About ten minutes after the birth of the fœtus she was suddenly seized with violent dyspnœa, which lasted about a quarter of an hour. There were no abnormal physical signs to be discovered in the thorax. She had several of these attacks during the next few days, but less severe. They seemed to be uræmic in nature. The urine continued albuminous and she had bad headache for sometime. She also developed a rough systolic murmur at the left apex, evidently caused by dilatation of the ventricle as the apex became displaced downwards and outwards. The pulse showed increased tension, and the œdema of the vulva and legs remained stationary for quite a fortnight, after which it slowly declined. The endocardial murmur slowly disappeared, and the albumen decreased *pari passu* with the general improvement.

Case 3. October 3, 1891. The patient was an extremely pale, thin woman, aged 38, of a phthisical family and never enjoying good health. She had ten children, subsequently two miscarriages. On the morning of October 3rd—she had a fit, and soon afterwards had three more without regaining consciousness. The author found her quite blind and only feebly conscious on his arrival at 8.30. She made some attempt to speak, but was incoherent and groaned often as if in pain. She also resisted being moved or touched. Almost immediately she had another fit, which began with conjugate deviation of the head and eyes to the left and complete arrest of respiration, the whole body

becoming perfectly rigid. In about fifteen seconds violent clonic spasms succeeded, affecting the whole body simultaneously. These continued with unabated strength for about forty-five seconds and then suddenly ceased. Breathing was extremely shallow and sighing, and the patient much cyanosed. From this point she gave no sign of consciousness and could not be roused. The author found the urine highly albuminous and so at once commenced digital dilatation of the os. Being constantly interrupted by fits he gave a small quantity of chloroform at intervals in the hope of moderating their violence, but it did not appear to have much effect. He found the os very rigid, as it had not been fully dilated for four years. Consequently he was only able to get it to admit three fingers and to rupture the membrane. On returning three hours later the author found that no progress had been made. She had had numerous fits and was obviously in a critical condition, the breathing being of marked Cheyne-Stokes' type; the pulse imperceptible at the wrist, extremities cold and the larynx much obstructed with mucous, which she made no effort to dislodge. There was no return of consciousness. As a last resource the author attempted to apply the forceps through the half dilated os, and on getting them fixed injected hyperdermically a full dose of ergotinin and a minim of liquor strychninæ. The fœtus, though near term, was very small and was extracted in a few minutes. The patient's condition was so critical that he was obliged, just before the birth of the child, to inject two syringefuls of brandy under the skin of the abdomen. He waited nearly half an hour before attempting to remove the placenta, knowing the patient's tendency to flood, but the uterus contracted firmly and gave no trouble whatever. She had two more convulsions between the delivery of the fœtus and placenta, not so severe as those preceding, and after the expulsion of the placenta there was absolutely no recurrence. She remained unconscious for about eight hours, but swallowed small quantities of brandy and milk when poured into the back of the throat. Later she fell into a natural sleep. Suppuration followed in the track of the injections of brandy, but not in that of the ergotinin. She made excellent recovery, but the fœtus was dead. A week after delivery there was no trace of albumen in the urine, but the urea was deficient being only .07 per cent.—*Lon. Lan.*

CURRENT LITERATURE REVIEWED.

THE MEDICAL CHRONICLE

of Manchester, England, for February contains an interesting paper by Dr. Thomas Harris on "Some Clinical and Post-mortem Observations on the Cardiac Dullness in Cases of Mitral Disease, and on the Relative Size and Position of the Cavities of the Heart." The different points discussed by the author are illustrated by reports of cases, and also by diagrams of the area of dullness over the cardiac region in the several cases.

Dr. W. Roger Williams continues his communication on

Observations on the General Pathology of Cancer—Especially of the Breast,

this number being devoted to the prevalence of cancer and its increase. "Cancer," he says, "has steadily increased during the last half century and is still increasing, and this in spite of diminution in the general death rate. Insanity also is on the increase." This statement he fortifies by tables from the office of the Registrar General for the years 1838 to 1890 inclusive, and also the death rate from cancer in other countries. "The augmented cancer mortality has coincided with progressive population, increased national wealth and marked improvement in the general well-being." It is impossible to consider this in any other light than cause and effect. The author also points out the decline in the death rate from phthisis and other tubercular diseases, which decline he regards as due to improved hygienic conditions and the very causes which have increased the can cer mortality.

Dr. Ernest S. Reynolds considers the causation of the deep reflexes (knee jerk, etc.) which he terms "Myotatic Contractions." He sums up as follows: "In the production of myotatic contractions, although the direct increase of tension by tapping the muscle or its tendon is probably the best way of inducing the phenomena, yet that in many cases, this increase can be caused very directly by the physical diffusion of vibration transmitted even from a distant part of the body." The contractions he thinks are not true reflex actions but are due to an increased tension of muscles in a state of myotatic irritability.

In the "Clinic" department Dr. W. H. Brazil reports a "Case of Gunshot wound of the Abdomen; Operation; Recovery." The

bowel was perforated by the ball in four places which were closed with Lembert sutures of catgut. The case recovered promptly, with no complications except a small fæcal fistula which quickly closed.

Dr. W. Roger Williams reports a case of

Laparotomy, with Excision of the Appendix, For Acute Perforative Appendicitis.

The patient presented symptoms of appendicitis; constipation, dullness and pain in the right flank, though the principal tenderness was in the left iliac region, and at no time was it possible to detect any tumor in the region of the appendix. At the operation the appendix was found enlarged and with a perforation at its apex. In the pelvis at the position of the apex of the appendix, there was a collection of pus the size of an orange. On opening the appendix a fæcal concretion the size of a date stone was found. The patient survived the operation six hours.

Severe Crush of the Chest.

A case is reported by Dr. J. M. Crawshaw, as the result of the patient having been crushed between two carts. On admission to the hospital the patient was suffering severely from shock and complained of great pain over the sternum and the left side of the back. It was impossible to feel the ribs, owing to the extensive emphysema present, which increased until it extended from the temporal regions of the scalp down to the wrists and to within three inches of the angles. The patient survived eight days. At the post-mortem the first six ribs on the left side were found fractured, the first through the neck, the lower ones through the angles. There was a tear in the parietal layer of the pleura above the first rib. The left lung was collapsed, solid, with two large ruptures in its upper lobe. The right lung was unimpaired. Two unusual features about the case were the slight amount of hæmoptisis and the fracture of the first rib without the clavicle being broken as well.

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES

for March contains a paper by Dr. S. Weir Mitchell on

Hysterical Rapid Respiration, with Cases; Peculiar form of Rupial Skin Disease in an Hysterical Woman.

The form of breathing is largely upper costal, sometimes exclusively so, and as a rule slight in amount. Early in the case the patient is ignorant of the existence of the symptom, but later, when the attention is called to it, the respiration rate is increased by any excitement—as the approach of nurse or doctor. Usually it is absent in sleep and the type of breathing is quite impossible as the result of voluntary effort. The paper gives the report of the cases in full and the tracings of the respirations are contrasted with the attempt of a healthy man to simulate rapid breathing. The rupial affection occurred in an hysterical girl and was pronounced by Dr. Duhring to be due to a degeneration of the nervous system. It was not syphilitic nor sarcomatous, but due to the disturbed state of the whole nervous system.

Dr. George H. Edebohls contributes a paper on

Movable Kidney; with a Report of Twelve Cases Treated by Nephrorrhaphy.

The author states that he believes the disease to be more common than is usually supposed, stating that out of 500 women examined he found it to exist in 90. Not every movable kidney however produces symptoms and often the possessor is not aware of his ownership. The author's theory as to its causation is the absorption or atrophy of the peri-renal fat. The subject is of interest to the gynecologist on account of its frequency in women as compared with men, and also because its symptoms are so similar to those accompanying lesions of the genital organs. Its frequency in women may, however, be overestimated on account of abdominal palpation being more frequently practiced on women than on men. In the majority of cases it occurs on the right side though Dr. Edebohls has seen it also on the left. Why it should occur on one side more than on the other he is unable to say. Perhaps the right kidney is more exposed to displacements on account of its position immediately below the liver, a heavy organ subject to great fluctuations in size and weight. "The morbid phenomena due to a movable right kidney in its earlier stages are digestive disturbances, chronic in character; general nervousness; epigastric pain, usually located somewhat to the left of the median line, at or near the free border of the left costal cartilages; cardiac palpitation; inability to feel comfortable or to sleep when lying on the left side." The diagnosis is easy and is made by the discovery of a movable tumor of the size, shape and consistency of the kidney, in the right hypochondriac or lumbar regions, or in the iliac fossa. In the treatment, a bandage is generally recommended, but the author thinks it ranks a poor second to nephorrhaphy. A well-fitting, rather tight corset answers well in males, and in women in whom no contra-indication exists in the condition of the sexual organs. The paper is to be continued in the next issue of the journal.

Dr. H. Augustus Wilson discusses "Fixation after Excision of the Knee." After reviewing the literature on the subject the author presents the following conclusions: Metallic bone-sutures will secure the most efficient internal approximation. They should never be removed unless some serious condition demands it. The entire leg should be kept free from the patient's control by an external splint for from four to six weeks. The most important element in the treatment is the prolonged use of a rigid brace.

Dr. Norman Bridge in a

Note on a usually overlooked condition in the Grave Convulsions of Infancy and Childhood,

divides the seisures into two classes. One is a true epileptic seizure, coming on suddenly without apparent accompanying illness, and provoked by some slight physiological disturbance, such as indigestion. In the other

form the fit is prolonged, a true eclampsia. The most notable difference clinically, is the presence of high fever (102° to 108° F.) in the eclamptic form. In the treatment cool bathing is advocated, especially as the temperature is reduced by this means. Of drugs he regards hydrate of chloral as the one most useful. Next comes opium. The bromides are useless.

In an article on "Cocaine in the treatment of Variolous and Varioloid Infection," Dr. Edward Pepper strongly advocates the use of this agent; stating, that by its use variolous and varioloid poisoning can frequently be arrested in a marked degree.

Dr. Henry J. Garrigues reports a successful case of "Symphysiotomy" illustrating the paper with cuts of instruments used, and photographs of deformed pelves.

Other papers in this month's issue are "A question of "Water, Ethics, and Bacteria," by Albert R. Leeds, Ph. D. The question of water analysis is entered into and discussed together with the best means of purifying the drinking supply of a large city. Dr. F. X. Dercum reports "Two Cases of Akromegaly," with remarks on the pathology of the affection. The report is illustrated with photographs of the patients.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY

For January contains a long letter from Dr. Swan M. Burnett, of Washington, in reply to one by Dr. A. E. Davis, in the *N. Y. Med. Jour*, for November 19th, 1892, under the heading of "Ophthalmometry in America."

The answer is in a good humored but decidedly caustic strain. It would seem that the energy expended in a mere priority fracus could be utilized with some profit in other ways. Surely the space thus wasted could have been filled with matter of some benefit to the profession.

"Two cases of Gonorrhœal Iritis" are reported by Dr. Adolf Alt.

There is also a translation of a clinical lecture by Prof. Panas upon

"Sympathetic Ophthalmia."

Reference is made in it to the experiments of Leber and Deutchmann by which they claimed that the inflammation was propogated from one eye to the other by the optic tract. Panas proceeds to say "But these experiments have been done many times since, and the results are not at all sure, so that we must not accept his theory as proved. At the last congress at Heidelberg, Schmidt, Pflueger, Lagneur and others spoke against it. If we cannot accept this theory, we cannot admit the advisability of an operation or attempt to prevent sympathetic ophtholmia by section of the optic nerve, or resection combined with abrasion of the ciliary nerves and vessels. We can add that this operation often results in an hæmatoma of the orbit, marked protusion of the globe, and death by meningitis, and that this happens much more often than has been said or written." The writer considers enucleation the most reliable means of preventing sympathetic ophthalmia. He also employs mercurial treatment either by "rubbing the ointment into the eye, or by hypodermic injections."

THE BRITISH JOURNAL OF DERMATOLOGY.

The February number contains two articles.

Dr. Alfred Francis in a paper on

Lymphangioma Circumscriptum Cutis

proposes (1) to describe the cases which have come under his own observation and some others, and (2) to attempt to group the recorded cases, basing their classification partly on their anatomical and partly on their clinical features. Though they all appear closely allied yet, for descriptive purposes, they are divided into the following groups and sub-groups:

Group I. Lymphangioma simplex.

Group II. Lymphangioma cavernosum.

Group III. Hæmatolymphangioma (L. simplex et varicosum et cavernosum.)

Group IV. Lymphangioma (s. et v. et c.) with pachydermia.

The paper is continued.

Dr. T. Colcott Fox offers an interesting and unique case of

Keratosis of the Palms and Soles, Probably due to Arsenic.

The patient, a young man, aged 20 years, sought advice on account of a chronic intractable thickening of the skin of the palms and soles. Six years previously, shortly after his first and only connection with a woman, the patient suffered from multiple "sores" on the penis. At this time he did not consult a doctor, but fifteen months later, after a sea bath, he discovered a red eruption which developed into blebs. This eruption commenced on the chest, became generalized and continued off and on for some time. The bullæ formed crusts of considerable size and left faint scars. Syphilis appears to have been diagnosed by several well-known practitioners, and the term *rupia* was applied to the eruption. The patient states that he never had a sore throat or tongue, or bubos. He took iodide of potassium on one occasion only, but it "poisoned him." Mercury was administered in one form or another for four years and three-quarters, and arsenic for at least four years. Thus it is gathered from his prescriptions that the patient was ordered five minims of liquor arsenicalis thrice daily in October, 1888; fifteen minims of Donovan's solution thrice daily in November, 1888; about two and a half minims of liquor arsenici hydrochlorici thrice daily in February, 1889; then arsenious acid and liq. arsenici dydrochlorici for a time, and finally liq. arsenicalis in four minim doses, thrice daily, down to about September, 1892.

When the patient consulted the doctor in November, 1892, he informed him that the exhibition of green iodide of mercury pills just before a prolonged sea voyage, the discontinuance of other medicine, and the sea voyage itself, had greatly improved his health. All bullous eruptions had ceased

and have remained absent. He was still rather pale. His palms and soles were greatly thickened and disfigured, and in such a manner as to suggest an arsenical origin. His face had a peculiar but slight muddy tint, which might well have escaped notice. The neck was rough and dirty-looking, and his body much mottled with dirty-looking pigmentation, which was probably due to arsenic and not to pre-existing eruptions. The skin, generally, of the limbs and body was harsh and dry, with indications of faint desquamation, but without any psoriasiform patches on the elbows or elsewhere. There was an indication of a scar on the glans penis, but no other objective sign of syphilis, unless the condition of the palms and soles be considered such. The latter regions presented a considerabie thickening of the epidermis, simulating hereditary congenital keratosis.

The treatment consisted of local remedies only. The palms and soles thoroughly soaked in soda and hot water each day, and when the epithelium was sufficiently macerated, vigorously attacked with pumice stone. Then Unna's strong salicylic acid plasters were applied night and morning, and worn throughout the twenty-four hours at first. Under this treatment the condition rapidly ameliorated, and soon there were only isolated warts to deal with. When the patient was seen last the hands and feet looked quite cured and had wonderfully improved in his general health.

The causation of this palmar and plantar keratosis seems to have been either syphilitic or arsenical, though we must remember that the palms and soles assumes a somewhat similar condition under other influences such as in congenital pemphigus, and perhaps hyperidrosis. We are not in a position, however, as yet to estimate the influence of the arsenic frequently administered in such cases.

We know, however, that administration of arsenic, in certain persons, excites, amongst other effects, peripheral nerve and vascular lesions, evidenced particularly in the palms and soles.

NEWS AND MISCELLANY.

The International Congress of Charities, Correction and Philanthropy.

We invite the attention of our readers to the following circular, and would earnestly urge members of the profession to participate in the proposed congress:

One of the series of Internationl Congresses to be held in Chicago in 1893 is to be devoted to the subjects of Charities, Correction and Philanthropy, and the third section of this is to consider all matters relating to the hospital care of the sick, the training of nurses, dispensary work, and first aid to the injured. The Committee of Organization of the Congress has appointed Dr. John S. Billings, Surgeon U. S. Army, as Chairman of this Section, and Dr. Henry M. Hurd, Superintendent of the Johns Hopkins Hospital in Baltimore, as its Secretary, and has authorized and requsted them, to complete its organization, to extend invitations and to prepare a programme for its work. Miss Isabel A. Hampton, Superintendent of the Training School for Nurses of the Johns Hopkins Hospital, has been appointed chairman of that part of the work of the Section which relates to the training of nurses.

This Section will hold five sectional meetings of about two hours each, commencing June 12, 1893, and will also have charge of one of the general sessions of the Congress, viz: that held on the morning of June 14.

It is desired that this shall be a truly international gathering for conference on the subjects alloted to this Section, and all who are interested in hospitals, in training of nurses, in dispensaries, or in first aid to the injured, are cordially invited to be present, to contribute papers and to take part in the discussions.

The papers and proceedings will probably be printed as a separate volume, and it is hoped that this will represent the best methods and the best work in each of these departments in all parts of the world.

The following are suggested as subjects for special consideration in papers to be prepared:

1. Hospital organization—governing bodies—relations of the medical staff and of nurses' training schools.
2. Hospital finances—means of support—mode of accounts—cost.
3. Plan and construction of recently built general hospitals, embodying the latest improvements.
4. Relations of hospitals to increase of knowledge, to medical education, and to the medical profession. Hospital records, statistics and reports.
5. Pay patients in hospitals.
6. Isolating wards and hospitals for contagious diseases.
7. Hospital diets, dietaries, kitchens, etc.
8. Hospital ampitheatres and operating rooms.
9. Hospital laundries and disinfecting establishments.
10. Army and navy hospitals—emergency hospitals in time of epidemics—temporary and movable hospitals.
11. Small and special hospitals, cottage hospitals, school hospitals, private hospitals, sanitoriums, etc. Convalescent hospitals, and what to do with incurables.
12. History and present condition of hospitals in the large cities.
13. Training schools for nurses.
14. Dispensaries—relations to the public and to the medical profession. Dispensary records.
15. First aid to the injured. Associations for best means of popular instruction in and its place in general education.

Persons desiring to present papers, or to share in the discussions of this Section, are requested to communicate with the Secretary at once. The period of time alloted for the preparation of the programme is necessarily brief, and it is essential that all who are willing to assist in this work should act promptly.

Address all communications to DR. HENRY M. HURD, The Johns Hopkins Hospital, Baltimore, Md.

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ORIGINAL ARTICLES.

WM. H. BURR, M. D., Wilmington, Del.
Some Thoughts on General Anæsthesia: Treatment of Accidents of Anæsthesia 397

ARTHUR D. MANSFIELD, M. D., Baltimore, Md.
The Different Forms of Iritis and Their Treatment . 401

CLINICAL LECTURES.

E. FLETCHER INGALS, A. M., M. D., Chicago.
Lymphadenoma 405

COMMUNICATIONS.

J. H. VAN EMAN, M. D.
An Unsual Cause of Retained Placenta With Case . 408

JOHN G. CECIL, B. S., M. D.
Specific Vaginitis 410

SOCIETY REPORTS.

The Clinical Society of Louisville 412

CORRESPONDENCE.

Medical Colleges and Small Cities 417

New York Letter 416

EDITORIAL

Cholera This Season 421

TRANSLATIONS 422

ABSTRACTS 424

SELECTED FORMULÆ. 427

CURRENT LITERATURE 429

PERISCOPE

THERAPEUTICS 432

MEDICINE 433

SURGERY 434

OBSTETRICS 435

GYNECOLOGY 435

ARMY AND NAVY 436

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THE
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ORIGINAL ARTICLES.

SOME THOUGHTS ON GENERAL ANÆSTHESIA: TREATMENT OF ACCIDENTS OF ANÆSTHESIA.

WM. H. BURR, M. D., Wilmington, Del.

So much has recently been written on anæsthesia that it would hardly seem possible to furnish any new thoughts on the subject.

But each individual experience may develop something new, and we give the following for what it is worth:

In the first place, not enough is said about the manner of administration which, in our opinion, is one of the most important matters in connection with the whole subject.

We are not a very devout believer in the alleged phenomena of hypnotism, but think a mild form of that power is very important in preparing a patient for anæsthesia.

Perfect confidence, amounting almost to an assumed carelessness, should be shown by the operator toward the patient, and such control as it is possible to acquire should be had in that way. Some slight explanation of its effects may be made if it is thought necessary, but one of the most important things to be aimed at is to be able to control the patient by suggestion during the early part of the anæsthetic process.

That this is possible may be easily proved by anyone who undertakes to carry out the necessary steps, and without the patient being at all conscious subsequently of any attempt to control.

The different stages of the process at which this control is available are, 1st: The irritant stage, when the patient may cough, roll his head from side to side, strangle and make himself generally miserable. A little firm and reassuring address with careful regulation of the vapor will do much to tide him easily over this stage. 2nd: Comes that *dead point,* occurring in almost all cases of anæsthesia, and which to us seems the most frightful period in the whole process. It is the point reached just before the complete abolishment of sensation and movement, when the patient lying limp, seems to forget to breathe, meanwhile rolling his eyes and staring fearfully, and yet is intensely sensitive to outside impressions. At this time a few firm, imperative directions to "*breathe deeply,*" or, to use a more common expression, "*take a long deep breath*", with an accompanying friendly dig in the stomach will carry him easily, safely and comfortably into the third stage, or complete anæsthesia.

But there is another very important feature in this part of the process. Between this *dead point* and the beginning of the third stage lies the stage of excitation so much dreaded by all operators. It is here that control is all important, and the will of one weak man holding the inhaler is often just as potent and much safer than the strength of six lusty fellows to hold the unfortunate patient on the table. An excitable, ill-advised word or laugh, or a rude noise will often precipitate an explosion

that may require some management to conquer and may affect the whole subsequent process. On the other hand a firm word, reassuring but commanding, will obviate all the above unnecessary and unpleasant phenomena.

I have repeatedly seen the *dead point* spoken of above, which precedes complete anæsthesia, mistaken for complete anæsthesia by operators who ought to know better, and who, acting upon their mistaken idea, have plunged the scalpel into the sensitive flesh with the result of having the patient fling himself from the table in a paroxysm of excitement. It is very probable that very many of the cases of sudden death in the beginning of anæsthesia are caused in this way, by attempting to operate at this awfully dangerous *dead point*, before the third stage of complete anæsthesia. It is notable that women are much easier of influencing during anæsthesia and much less likely to go through the stage of paroxysmal excitement, and I think it is largely owing to the fact that they are more susceptible to the influence of man's will than is man.

In my experience, though I have had almost no cases of unpleasant excitement in women, I can say with one or two exceptions the same for men. The exceptions were men whom I had not the opportunity to see, talk with and impress with my individuality before beginning the process. In other words, they were already unconscious when I took the inhaler from the hand of an operator who did not believe in my system and did not undertake to practice it.

I am very glad to see that there is one person who agrees with me; vide: abstract from *Australian Medical Journal*, in THE MEDICAL AND SURGICAL REPORTER, Jan. 21st: "That the administration should be gradual and that the principal danger is in the beginning of anæsthesia" (and not after full development.)

Though it is held by many that each successive minute of anæsthesia increases the danger, I cannot altogether give credence to that idea and I often feel safer the second half than the first half hour of an hour's operation.

It seems as though the system in a manner adjusted itself to the condition of anæsthesia, and yet it would not be well to trust too implicitly to that adjustment, and the pulse and respiration must be watched with every sense that we possess, especially the patient's face. The operation should be as quickly done as is consistent with skill and precision. There is no doubt that a prolonged anæsthesia does depress the powers of life very much; and it should be constantly held in mind that in prolonged anæsthesia the transition from sensation to profound coma is often very rapid, requiring a very small quantity of the vapor to produce it. It is very common for operators upon the first returning sign of sensation, to urge, often imperatively and fretfully, the administrator to give the patient more ether, with the result sometimes, when the administrator is young or accustomed to defer, that he crowds on too large an amount and the result is unavoidable (?) death from ether; cause, some idosyncracy of the patient. Real cause; some idiosyncracy of the operator.

The man who gives an anæsthetic ought to have a thorough and complete understanding of the whole subject of anæsthesia, and then he ought to pay very little attention to the directions of the operator except to reassure him from time to time as to the condition of the patient, and to do a little polite lying, if necessary, when requested by the operator to give more than he thinks advisable. The operator is in a position to know little or nothing of the physical condition of the patient, and he ought not to have the added responsibility and anxiety to bear. The commonly accepted signs of complete or incomplete anæsthesia are very unreliable, as anyone will find who attempts to go by them. The sensitiveness of the cornea for instance, is one of the most unreliable. I have seen a person whose cornea was extremely sensitive as proved by movement in the muscles of the lid, yet who was on the verge of deadly coma. Even extensive muscular movements of the legs and arms, with movements of the body and efforts to articulate words, are often present at the same time the patient has all of the anæsthetic that he ought to have.

It is not always safe to push it in those cases of excitement, but often with a careful continuence of the process and perfect quiet the excitement will subside, and the organism will adjust itself to the conditions of anæsthesia when it will be sur-

prising how little vapor will be found necessary. If death occur in the later stages of anæsthesia there would seem to be less excuse for it than in the early stages, especially if it come on gradually as in chronic disease processes.

We have never been so unfortunate as to be present when complete death resulted, but have been there when we think it would have taken an astute and learned professor to say that the patient was not dead.

It was a colored woman in labor some several days. A professional sister was using Barnes' dilators and I was using chloroform. The patient was very hard to influence and much chloroform was used. Being somewhat of a green hand, I was foolishly depending on that greatest of all fallacies the *sensitive conjunctiva.*

The patient was stertorously breathing, when she stopped and, as near as I could make out, she had not any pulse either. She was limp as a rag. I jumped on the bed and caught her by the heels, took one on each shoulder and throwing her over my back, stood up as straight as I could on the bed. Two slats came out and I took a fresh hold. I called for a bit of rope and tied the two heels together over my neck until some of the men folks could arrive and help me. I weighed about 130 pounds, was weak as a cat and consumptive; the woman weighed about a ton. In the mean time my professional sister with a wonderful control of mind and heart, was slap-dashing cold water, wet towels over the chest; pulling out the tongue and attempting to use artificial respiration, and at the same time keeping my heart up, for which I shall bless her to my dying day.

The patient gave a gasp after what seemed an unconscionably long time; presently another, then another and shortly began a sort of apology for breathing. Did I lay her down? Not I. Mindful of Tait's experience, I held her there listening to the welcome breath sounds for so long a time it seemed to me an half hour. When we finally laid her down the position of fœtus had entirely changed; the os, which had resisted dilatation for days, was widely open and labor went on most comfortably being completed in a few pains. A dead child being the natural (?) result.

TREATMENT OF THE ACCIDENTS OF ANÆSTHESIA.

In the treatment of the accidents of anæsthesia there seems to be very little accord or general agreement. It is a reproach to medicine and very unfortunate that such should be the case in the treatment of any condition, much more the grave complications which we sometimes meet with here.

Is it not enough that our friend the homeopath should be satisfied with superficial and hypothetical analyses of diseased conditions, and still more superficial and absurd therapeutical applications to those conditions. We ought to have a thorough and rational idea of any pathological condition that may arise and then apply remedies in an equally rational manner.

What then is the condition likely to arise which will require active treatment, and what treatment is the best and most likely to be fruitful of good results? The condition most likely to arise is overcrowding of ether which probably acts in two ways; first by its narcotic or poisonous effect on nervous matter composing the important centers of respiration and circulation; second by its mere presence mechanically preventing access of sufficient oxygen to those centers.

The treatment then, of course, will be to supply air to the blood.

Open the windows and invert the patient—generally the last things that are thought of. People cannot get it out of their heads that anæsthetics are not chemical poisons in the true sense of the word, and the most that is necessary is to supply fresh oxygen, and allow the system to eliminate the agent. Inversion and fresh air is the treatment of all cases where the patient has apparently ceased to breathe. There should be no time wasted in endeavoring to perceive whether the heart is acting or not. Prompt inversion, not allowing an instant to intervene, for in one instant who knows but that the patient may cease to live.

Throw the patient over your back, taking him or her by the heels and allowing the head to hang as low as is possible. Time, place or propriety have nothing to do with it. It is a case not of life or death, but death or life, with death in the preponderance.

The rationale of this is perfectly intel-

ligible. It is that you shall produce by means of gravity that which you cannot by means of the vital pump. Because the vital pump is for the instant collapsed, no good, struck for higher wages. By means of gravity you bathe the paralyzed nerve centers with what amount of oxygen there is left in the vitiated blood current, and thus in many cases start up the whole apparatus of circulation and respiration.

And this brings us to the second part of our treatment and that is artificial respiration. How, let me ask, will it be possible to practice any of the various methods of artificial respiration, whether it be Marshall Halls' or the Sylvesterian or what not, in the inverted position?

You must either sacrifice the position, which I am afraid is too often done, or find some new method of introducing air into the lungs.

And a method that commends itself to me is one that I saw mentioned not long since in the REPORTER, *i. e.*, direct insufflation mouth to mouth. I have never had occasion to try this in an adult, but have used it in several cases of comatose babes, which might have been in another world if I had not hoped, believed, and been patient. Some of these babes were white and some were black, some came by the breech, and some had the cord wrapped tightly around the neck. All were blue, limp and apparently dead. I do not remember ever to have failed to resuscitate any of them, and my method has always been the same. A large bowl filled with pretty hot water, some of which is dipped out from time to time and hot water introduced in its place. The babe is *suspended in your hands in the hot water from which it is raised for an instant from time to time, and the end of a towel wet in cold water dashed against it's back and chest. Direct insufflation into the lungs mouth to mouth. I have kept this up for three hours, the perspiration rolling off me and my bones feeling as though they had been through a rock breaker. And finally had the satisfaction of seeing the limp and apparently lifeless, cold and blue body become warm and red. Then wrapping the babe in raw cotton I toast it before the fire, and in a few hours it is dressed. It does not need washing.

*Horizontally. In my experience inversion does not seem to be very beneficial, especially if kept up very many seconds. Occasional inversion for a few seconds has seemed useful

I don't mean to say that the babe *is* dead. Often I have fancied that I could hear a feeble heart beat though I don't spend very much time making a critical examination.

But it does not breathe, and in all probability would I think be classed as dead birth if its blue and cold body had not been warmed into life at the same time that the breath of life was blown into it to perpetuate that warmth and life. In the beginning of my career I used to use a tube, especially if it was a black babe, but very soon threw it aside. There is no time to think of nice points such as possible infections, blood poisoning, etc. A life is at stake, a human life, and if a man saves one life in his own lifetime he may have accomplished something.

The theory of the hot water is this:—in the first place it makes the best medium possible for imparting an equalized and regular temperature to the child's body, and has the advantage that it can be nicely regulated by the addition of more hot water by displacement. Besides which I am of the opinion that with each moment that the blood is allowed to remain cold at the surface of the body, is the hope lessened that it shall be made to move and circulate healthily in the vessels.

* * *

Of course if the patient has a hemorrhage in any part of the brain, all the artificial respiration and stimulation in the world probably are not going to help him.

But the question is, might not that hemorrhage have been avoided if the conditions of circulation had been watched?

For instance there is in many cases of anæsthesia, especially in the early stages, an irregularity between the action of the heart and lungs respectively. The heart replying to the stimulant action of the ether may be acting vigorously while the respiratory center is obtunded and the patient in a manner forgets to breathe.

The refusal of the lungs to take the blood from the heart, coupled with the obstruction which the circulation has to overcome from the fact of a normal amount of oxygen being absent, would still more cripple the heart and, if the patient had any weakness of the coat of any blood vessel, it would give way to the active pumping.

A summary of the general advice

given for the treatment of the accidents of anæsthesia wonld read about as follows: If there are symptoms of failure of respiration or circulation, lower the patient's head; allow ingress of fresh air; give hypodermically whiskey, ether, digitalis, strychnine—any or all of them.

If the patient has ceased to breathe use some method of artificial respiration. And incidentally it is advised to use a medium strong Farradic current. This brings us to the last point in our treatment. The use of drugs—And here there is no general agreement, but one thing may be doubted, one would think, and that is that when the circulation is in a very weak condition there will not be very rapid absorbtion.

THE DIFFERENT FORMS OF IRITIS AND THEIR TREATMENT.

ARTHUR D. MANSFIELD, M. D., Baltimore, Md.*

Iritis, so disastrous in its effects upon the eye, is perhaps the one disease that may be the most easily mistaken for a simple inflammation and yet when recognized it will yield most beautifully to proper treatment.

I submit that iritis exists in three distinct forms. 1. Simple iritis; 2. Plastic iritis; 3. Suppurative iritis.

Under the second form I will include *a.* Syphilitic iritis; *b.* Rheumatic iritis; *c.* Traumatic iritis.

These latter forms may easily, and sometimes do, pass into the suppurative form —especially the syphilitic iritis.

SIMPLE IRITIS

is an affection of the iris in which inflammation exists in the simple form, and in which we have the vision impaired to a more or less extent. Objects that are easily discernable by the eye in its normal condition can hardly be seen, or seen as if a mist had completely enveloped the object. The eyelids are closed that all the light may be excluded. Photophobia exists to a marked extent, dependent entirely upon the intensity of the inflammation. The cornea as a general rule is not cloudy in simple iritis, though in the graver forms it may be clouded and even opaque.

One very noticeable and diagnostic feature of iritis is the circum-corneal injection which is very characteristic, once seen can never be mistaken and is very often of considerable assistance in making the diagnosis. This circum-corneal area of injected blood vessels presents a uniform pinkish appearance, not red in any one part more than in another, and appearing rather deeper than the conjunctiva, which in reality is the case, the vessels injected being scleral vessels. The injection of these vessels is pathognomonic of iritis. Pain may exist in simple iritis, (not the painful vision which we know as photophobia, but characteristic temporal and frontal pains,) or may be absent entirely. There is no more variable or inconstant symptom of iritis than pain.

The iris itself presents the most characteristic changes. The iris is sluggish, slow in moving when light is thrown upon it by the focal illumination obliquely, not because it is attached to any substance that holds it in its place, but because the exudation from the inflammatory area prevents the proper functioning of the muscle fibres. The iris also changes its color very materially, taking on an ugly yellowish brown. It has the appearance of being elevated by small excrescences, in the shape of small papules or cilia and gives one the idea of fungoid growth. The color of the healthy iris has much to do with the color of the inflamed iris, the mixture of the two colors rarely resulting in a pleasant combination. The amount of color change may be very small indeed, in fact may escape a casual observation and require a very close examination. The change usually begins at the pupillary orifice and gradually extends toward the periphery in lines gradually merging, thus forming one complete surface of muddy, inflamed area.

The treatment of iritis differing somewhat in degree according to the intensity and variety of the inflammation, is

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pretty much the same, consequently I will omit to speak of that now.

PLASTIC IRITIS.

The symptoms of this form of iritis differ in degree of intensity from the former. We have pain in the frontal and temporal region, in fact in every part of the head and even down the back, but the pain is particularly marked in the frontal and temporal regions. Photophobia exists, the vision is impaired greatly, the aqueous humour is cloudy and murky, the membrane of Descemet is inflamed and swollen, sometimes the cornea also, the substance of which may be infiltrated and the transparency of which is consequently impaired. The iris is muddy, sluggish, and the pupil may be dilated or contracted, may be bound to the lens by plastic adhesions in its entirety, or only in separate points, thus giving it an irregular appearance. The circum-pupillary area is always changed in color more than any of the other parts, this area seemingly being the most susceptible of all the parts of the iris to inflammation; there may be part of the pupil occluded or there may be an entire occlusion with the iris bound to the lens in every part and a plastic membrane thrown over the pupil. Or this plastic membrane may not be present and the pupil free so far as admission of light is concerned, yet, the communication between the two chambers, prevented. This in itself is a matter of serious consequence as the anterior chamber depends upon the ciliary bodies behind the iris for its supply of aqueous humour; such a condition is known as total posterior synechia or occlusion of the pupil.

The first subdivision of this form is syphilitic iritis. In this we have the form of iritis capable of the greatest destruction and damage to the eye, and yet, in an otherwise healthy and vigorous constitution, it is most tractable and yields most readily to treatment. It is on this account that syphilitic iritis is the most preferable form to treat, because syphilis is so amenable to the use of iodide of potassium. Syphilitic iritis comes on as a secondary symptom of syphilis and may be accompanied by a rash general in character. Pain is rarely very great, certainly not in proportion to the inflammatory condition of the eye. Gummatous nodules make their appearance very often during the course of syphilitic iritis. I have noticed these gummata to appear more frequently in the negro than in the white; this may have been a coincidence of hospital practice and have no value whatever. Sometimes these gummatous growths suppurate and fill the anterior chamber with pus.

These gummata often leave a cicatrix causing a permanent change or alteration in the iritic substance.

The next subdivision of plastic iritis is that very stubborn, very slow form known as rheumatic iritis, seen in patients that have had rheumatism for a longer or shorter time—usually in old persons that have become completely saturated with rheumatic poison. Such iritis means slow recovery, for the reason that rheumatism yields slowly to general treatment, and this shows the vital difference between syphilitic and rheumatic iritis.

Rheumatic iritis is attended with severe pains in the head, and in the eye the conjunctiva is very much injected and swollen; at times the scleral vessels are congested and the sclerotic being a fibrous structure takes on the specific rheumatic inflammation. While the pain is greater and the injection and apparent inflammation greater in rheumatic iritis than in syphilitic, the exudate is less and consequently the damaging results and sequelæ from exudation are less liable to occur, as we rarely see such damage wrought by rheumatic iritis as by the syphilitic form.

Syphilitic iritis has a greater tendency to cause adhesions than has rheumatic iritis, is shorter in duration, and when alleviated speedily recovers and has no tendency to the relapses which are so numerous in rheumatic iritis. Again the color of the iris is not changed so much in rheumatic iritis as it is in the syphilitic form, simply because we do not have that immense amount of exudate in the former.

The third form of plastic iritis is that seen following a traumatism of any kind, whether penetration of the globe is accomplished or not. In many cases a blow is received in the eye and a violent inflammation ensues. The conjunctiva becomes reddened, swollen and œdematous; the iris congested and changed in color; the pupil sluggish in response to light, and all the phenomena of iritic ad-

hesions may form if the pupil be not properly dilated. The blow may have caused a wound of the cornea, perhaps not sufficient to allow of hernia of the iris, yet sufficient to allow the escape of the aqueous humour and the formation of anterior synechia—the iris becoming adherent to the cornea. The part which usually becomes attached to the cornea is the pupillary margin, the pupil is usually elongated and drawn toward the wound in the cornea, the usefulness of the eye being impaired.

SUPPURATIVE IRITIS

Usually follows a gumma—though it is not always a result of syphilis. The gravest affection of the iris is this suppuration because such destructive changes occur.

Rapid are the changes in this form of inflammation. The color of iris becomes quickly changed, the aqueous and cornea become cloudy and murky, the eye intensely inflammed with much pain and photophobia, the iris is perceptibly swollen and bulged forward, the pupil very sluggish and oftentimes immovable and entirely closed with no reflex whatever to the ophthalmoscope .

There usually appears a point of inflammation and suppuration in the substance of the iris, which sooner or later discharges a purulent substance, which graviates to the bottom of the anterior chamber and may be so great as to reach the level of the pupillary orifice.

Suppurative iritis is usually associated with a lowered condition of the system. Suppuration may also result from a traumatism. The suppuration is not at all limited to the iris, but may extend throughout the uveal tract to contiguous areas. The vitreous may become muddy, and the result may be panophthalmitis.

In the treatment of iritis one point takes precedence over all others, it is to always *dilate the pupil.* The reason for this dilatation is to keep the edges of the iris from the margin of the lens, and to facilitate emptying the globe of deleterious matters by a free circulation through its vessels and canals.

The best means of preventing these adhesions is the use of atropine. A weak solution may be used at first if no adhesions have formed, and the dangers are averted. A one per cent. solution of atropiasulphas in water, instilled every two hours in the initial stage of iritis, no matter of what variety, will prevent adhesions. Should the adhesions have formed, we must use stronger solutions until we have broken them. The use of an ointment consisting of vaseline one drachm, atrophia sulphas five grains, every hour for a few hours, and then every two or three hours, will prove very efficacious in breaking adhesions that have resisted weaker solutions. The iris will dilate where it is unattached, thus giving an irregular shaped pupil showing the point or points of adhesions. It has been recommended to use alternately, solutions of atropia and eserine. I cannot commend this method as I think it inflicts unnecessary pain without accomplishing any benefit, certainly not sufficient to justify its use. The atropia being a more powerful drug than the eserine, the latter has no appreciable effect whatever.

Atrophia is our most valued drug in the treatment of iritis and yet occasionally we must dispense with its use because it causes too much local irritation, and also causes constitutional changes peculiar to belladonna poisoning. Occasionally a single installation of a solution of atropia will cause all the violent symptoms of atropism. In such cases we are not at a loss for a substitute, as we have hyoscyamine, duboisine, hornatrophine, with their salts. The duboisine should be used in weak solutions as it is possible that idiosyncrasy may exist for it as for the other mydratics.

The relief of pain and of congestion seems to be next in importance. Atropine is a sedative and tends to alleviate the pain; heat in general will diminish pain; a good way is to immerse the eye in a cup full of hot water and then apply dry hot cloths or cotton wool. The use of leeches, natural or the artificial often relieves pain by depletion. The amount withdrawn by the leech should be about an ounce. Salicylate of soda, 10 to 15 grains every three hours, will sometimes relieve the pain considerably. A *dernier resort* for relief is paracentesis of the anterior chamber; this, when properly done, rarely causes any unpleasant effects. The wound in the cornea should be prevented healing by the insertion of a blunt probe,

that the tension may be relieved as much as possible.

When iritis is seen in its early stage, iced applications are far better than warm or hot applications. The latter rather tend to promote inflammation, while in the early stages cold tends to abort it. In cases that assume a chronic appearance —better one week and worse the next—the most reliable remedy is iridectomy, which should be done upwards when the tension of the eye becomes plus and the other symptoms marked showing no signs of disappearance. Each case should be judged on its own merits and no hard and fast line can be laid down.

If a few points of adhesion exist and no recurring attacks appear, it is far better to let the eye and the adhesions alone. But should iritis appear from time to time it is necessary to free the iris from the lens.

One method is to make the corneal wound as near the attachment as possible and large enough to admit the introduction of the forceps, and seizing hold the iris draw it away from the lens, thus liberating it, being careful, of course, not to wound the lens. Another method is to make the corneal incision opposite to the attachment, then passing a hooked spatula in and beneath the iris, try to lift it from the lens. After each of these operations use atropia and close the eye with a light bandage. In cases where we have total occlusion of the pupil, with total posterior synechia and no communication between the anterior and posterior chambers, the best method is free iridectomy upwards and downwards; this method has a two-fold value, establishing communication between the two chambers and, at the same time, forming an artificial pupil which enables the eye to discern objects.

In iritis with suppuration and hypopyon, paracentesis is the only means to be employed. In some cases, when the amount of pus in the anterior chamber is small, the use of constitutional remedies often absorbs the exudate. Blood-letting is contra-indicated in all such cases, as are all remedies that tend to lower the vitality. Of course, systemic treatment is indicated chiefly in syphilitic and in rheumatic iritis. For the relief from pain we may resort to chloral hydrate or morphia, either internally or hypodermically.

When syphilis is undoubtedly present we should push mercury and iodide to the full limit. If necessary mercurial inunction should be practiced, and kept up until signs of the disease begin to disappear. My usual method is to give ¼ grain proto-iodide of mercury in an excess of iodide of potassium, and increasing the dose until the disease shows signs of abating. In rheumatic iritis the treatment, as a general rule, will not be so encouraging as in the former. Rheumatic iritis, in my experience, has been very tardy and frequent relapses occur, simply because the iritis appears very late in chronic rheumatism, while iritis appears as a secondary symptom of syphilis and manifests itself early in the disease if it is going to appear at all. With salicylate of soda and the general alkaline treatment I have found as good results as with any other.

Dandruff Cures.

A correspondent of the *Lancet* asked for advice regarding very persistent dandruff which affected a female patient, and he has received the following responses:—Dr. David Couper, of Glasgow, advises the patient to wash well the roots of the hair twice daily with a lotion composed of perchloride of mercury in a saturated alcoholic solution of boracic acid (quantity not stated). When this has dried let her rub in an ointment of sulphur and carbolic acid—say, 20 grains of the first and ½ drachm of the other to the ounce—using lanoline or lard, or a mixture of both as an excipient. Dr. E. Curtin says he has had good results in obstinate cases of scurf of the scalp by washing the head in warm water containing about 3 drachms each of sod. bicarb. and liq. picis carb. to the quart, and afterwards applying ichthyol ointment. Dr. E. Fenoulhet, of Herne Bay, suggests a weak sulphur ointment. He has used it of the strength of 2 drachms to the ounce of vaseline in a most obstinate case of dandruff with complete success.—*Ex.*

Coffee as a Cause of Itching.

Dr. Brown Sequaid again draws attention to the fact that occasional Pruitus Ani depends upon drinking coffee, and publishes a case in which leaving off the beverage completely cured a case, the malady returning on recommencing the beverage. —*Therap. Monat.*

CLINICAL LECTURES.

LYMPHADENOMA.

E. FLETCHER INGALS, A. M., M. D., CHICAGO,*

This young man is 23 years of age. He comes to us from Iowa, complaining of a cough which has lasted for about two months. He is a farmer, and so far as we are able to learn, has lived a regular life. He claims that he has had no venereal disease and there is no reason to suspect it. You notice that the face, ears and nose are congested, and this is especially marked when he has been out in the cold. He tells me that about five months ago he first noticed some swelling in the neck, on the right side, just above the clavicle. About two months afterwards he noticed also a little swelling upon the left side. Three months after he first noticed the swelling upon the right side he began to cough, and he has now a short, hacking, sometimes paroxysmal, cough which is very troublesome. He had very little pain and did not at first consider the cough a very annoying symptom. The sputum is comparatively small in amount. He has been troubled with shortness of breath since the cough began. During the last two months the symptoms have steadily increased and he has been unable to work for five weeks. On the 10th of December he had a strangling spell with the cough, lasting several minutes, during which he thought he was dying. The difficulty in breathing has gradually increased until he now gets out of breath in walking an ordinary block. During the last few weeks his appetite has been poor and he thinks he has lost considerable flesh. I find that he was subject to frequent attacks of croup until he was 12 years of age.

Inquiring into the hereditary history we find nothing whatever. His father who came with him appeared to be a sound man and told me that on neither side of the family has there been any hereditary disease that he knows of.

I find the temperature 100°; pulse 100 and about three-fourths as strong on the right side as on the left. The voice is slightly hoarse, but there are no other symptoms.

Examination of the nasal cavities shows that the right side is about three-fourths closed by swelling, but this is probably due to an acute cold. The uvula and pharynx are slightly congested, (about ten per cent). The tonsils are normal.

On examination of the larynx I find only about five per cent. of congestion and the cords move freely; the arytenoids overlap each other fully one-fourth during phonation, although such a condition is frequently found in health and both sides move alike in this case, I see no reason to think that this change in the movement of the arytenoids is in any way due to the disease. I am unable to see the trachea except in the upper part which I find congested about five per cent. As a standard of congestion 100 per cent. would indicate the deepest red which might result from catarrhal inflammation.

Upon superficial examination of the neck we observe on the right side just above the clavicle, a movable swelling, somewhat nodular and appearing to be made up of a number of glands. It is about two inches in its lateral diameter, about two and a half inches vertically and apparently about an inch in thickness. Upon the left side we find a similar enlargement just above the outer portion of the clavicle, an inch and a half in its different diameters and not more than three-fourths of an inch in thickness. On the right side there is a slightly enlarged gland a little below and back of the inferior angle of the jaw. There are no enlarged glands on the posterior aspect of the neck. There is a slight enlargement of one of the axillary glands, but not more than might be found in many healthy persons.

You will observe the prominence of the superficial veins which are quite tortuous and stand out distinctly over the upper portion of the chest, more especially upon the right side, running over the right shoulder and down the right arm. You see also a diffuse swelling at the anterior

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and lower portion of the neck, extending from side to side, not quite as prominent upon the left side as it is upon the right. The swelling is soft and elastic with no enlarged glands beneath it. It is due to turgescence of the smaller veins caused by obstruction to the return of blood to the heart as indicated by the enlarged and tortuous veins.

The movements of the chest are not as free as in most healthy men, but they are alike on both sides. The respiratory movements are much more pronounced at the lower part of the chest than at the upper. I find an abnormal area of flatness at the upper part of the sternum as low as the third rib, extending into the right and left intra-clavicular regions. By careful percussion I find that it extends about an inch to the right of the sternum and from the third rib to the clavicle. There is also very decided dullness about an inch in width extending along under the right clavicle an inch farther toward the shoulder. As I percuss to the left of the sternum, I find an area of flatness extending from the third rib to the clavicle, the outer border of which runs upward about half an inch from the sternum in the second interspace. Over the whole area of the upper portion of the sternum down as low as the third rib (right), we have perfect flatness extending under the right clavicle and to the middle third of the left clavicle. The resonance at the inner portion of the suprascapular region is not quite as great as normal, but still there is not a distinct flatness. I find the apex of the heart in the usual position and the sounds normal. There are no abnormal murmurs heard over the upper part of the heart.

Upon listening over the lungs, I find distinct respiratory sounds over every portion of the lung except in the small area where we get the flatness. I find, however, that there is a loud, tubular sound, not very pronounced but still distinct, differing from that which we get in a healthy chest. This we might call a sonorous rale and as the sound is heard all over both lungs it must come from the trachea. If it were from a bronchus it would be heard on one side only. I find on the right side of the sternum a little of the bronchial element in the murmur, sufficient to distinguish it as broncho-vesicular. Distinctly over the sternum I hear nothing whatever of the pulmonary sounds, either bronchial or otherwise. A little to the left I hear broncho-vesicular sounds, but not as distinct as upon the right side.

The symptoms and signs in this case are evidently caused by a growth back of the upper part of the sternum, which is probably connected with the tumor visible above the clavicle.

A tumor occurring behind the upper part of the sternum has about nine chances out of ten of being an aneurysm. As a rule aneurysms do not occur in patients under 45 years of age; indeed they are quite exceptional in young patients. Aneurysms are apt to cause difference in the radial pulse of the two sides such as we find here. An aneurysm may cause a murmur, but not necessarily. I think in fully one-half of the cases I have seen of aneurisms of the aorta, there have been no abnormal murmurs. An aneurysm is also apt to cause more or less enlargement of the veins of the surface by obstructing the return blood through the descending vena cava or through one of the innominate veins. Aneurysm of the aorta is almost always attended by a peculiar pain, which is apt to be present in the very beginning, possibly before the patient experiences any other discomfort. This patient has had no pain in the upper part of the chest. In cases of aneurysm you will nearly always be able to feel pulsations, by pressure with the hands upon the anterior and posterior surfaces at the point where the tumor lies, even though the pulsations may not appear upon inspection or by palpitation on the surface only. We get no pulsation whatever in this case. Although in this case there are some symptoms and signs similar to those of an aneurysm, the patient's age, the absence of pain and of pulsation over every part of the tumor, the existence of a tumor above the clavicles and the absence of abnormal murmurs are ample to enable us to exclude aneurysm.

An abscess of the mediastinum would seldom be attended by enlarged glands above the clavicle; it would usually cause pain and would nearly always be attended by hectic fever and marked constitutional disturbance. This patient's general condition is excellent; there have been no rigors, and little, if any, fever and there is no pain; we can, therefore, exclude abscess with safety.

Somewhat similar symptoms to those we have found here may result from thickening, the result of syphilis; but we have no evidence of syphilis in this case, and as the boy has come from the farm and appears truthful in his statements, and there are no ear marks of the disease, we ought not to accuse him of having had it.

Nearly all solid growths in the mediastinum are malignant, though they are not necessarily true cancers. We have, for example, in the affection known as lymphadenoma a disease which, although not cancer, has in this locality a malignant clinical history, and I know of no possible way whereby we may accurately differentiate between it and true cancer. In this case the following features point to the diagnosis of lymphadenoma; there are several enlarged glands above the clavicles; the patient manifests no peculiar cachexia and he has no pain. In true cancer there is usually pain, and cachexia is commonly developed comparatively early. Lymphadenoma is apt to crowd the lungs before it; cancer to involve every tissue with which it comes in contact. The lungs in this case seem to have been crowded before the tumor to the right and left of the sternum. If we had here true bronchial breathing we would conclude that the lungs were involved, either by infiltration with cancerous deposit or by inflammation caused by pressure; but the sounds which we hear in this case are so feeble that they may be transmitted from the trachea. We cannot say positively t the lung tissue itself is or is not involved; but as the patient has no expectoration the chances are that the lung is simply crowded before the tumor and that the broncho-vesicular sounds are transmitted from the trachea and larger bronchial tubes.

The diagnosis is thus narrowed down to either lymphadenoma or carcinoma, with the weight of evidence in favor of the former.

Practically all cases of mediastinal tumor of any size are malignant. I may say, with reference to the prognosis in this case, that it makes very little difference to the patient whether we call it lymphadenoma or carcinoma; the progress of the case most assuredly will be from bad to worse. The chances are that this tumor will continue enlarging, pressing more and more upon the trachea or bronchi until breathing becomes difficult or deglutition is prevented. By compression of the trachae and the lodgment of tenacious mucous at the point most constricted sudden death may be caused, or, as frequently happens in these cases, the disease may cause inflammation of the lung with abscess or gangrene. If the tumor presses on the œsophagus he may die from starvation.

As to the treatment, unfortunately there is nothing which seems to hold out any hope for this patient. There can be no hope from the surgeon's knife. We will put him upon the iodide of potassium and chloride of calcium to see whether any reduction of the glands can be effected by these drugs. I have on previous occasions told you that in simple enlargement of glands chloride of calcium sometimes has a pronounced effect, and iodide of potassium acts similarly. Another reason for prescribing iodide of potassium is, that sometimes even malignant growths will, for a time, diminish under its influence. We will give this patient 7½ grains of each of these remedies, and gradually increase the dose to fifteen or twenty grains of each. I shall have him weighed daily in order to ascertain the effects of the drug. If it acts favorably we will expect an increase in weight. If, on the contrary, it has no beneficial influence, then we will expect the patient's weight to gradually decrease. If the weight augments the remedies will be continued, but if at the end of ten days he has lost two or three pounds, we will send him home with whatever comfort we can give him, feeling sure, however, that his prospects for recovery are gloomy.

I am especially glad to show you this case as it is one of extreme and unusual interest, and while it is true that no clinician can frequently present such cases on account of their rarity, still you may happen to fall upon one in your practice, and you will be aided in making a correct diagnosis after having seen this one.

To prevent or to put a stop to the formation of new tissue in the kidneys, in cases of interstitial nephritis, Prof. Da Costa believes that the bichloride of mercury is of more value than the iodide of potassium.—*Ex.*

COMMUNICATIONS.

AN UNUSUAL CAUSE OF RETAINED PLACENTA WITH CASE.*

J. H. VAN EMAN, M. D.†

Mrs.—, æt twenty-three; married at nineteen; the mother of three children, the last born Sept. 22d, 1892; has always been healthy, though subject to intense headaches, particularly since her marriage. She is a good sized, healthy looking young woman. Her first child was born about a year after her marriage, was alive, and the labor, though somewhat tedious, terminated with the unaided powers of nature and without a torn perineum. The second child was born less than two years after the first, and this labor resulted in a badly lacerated perineum, which was properly repaired with a good result. She did not menstruate after her second labor, and did not know she was again pregnant until her increasing size and later, the fœtal movement, gave absolute evidence as to her true condition. Her third pregnancy was uneventful excepting an almost continuous pain in the right side near the level of the crest of the ilium.

She was taken in labor Sept. 22d, 1892, and was in labor for about twelve hours. The first stage was slow on account of the early escape of the amniotic fluid. The second stage was rapid. The child large and plump. The cord a good length and not around the child's neck. An examination made immediately after the birth of the child showed a large and very firmly contracted uterus. Making further investigation twenty minutes later, I found the placenta was entirely within the uterus, only the cord hanging out of a firmly contracted os. No attempt having been made by the uterus to expel the placenta at the end of forty minutes, the vagina was well cleaned out. Introducing my fingers into the vagnia and thence into the cervix, I found the entire placenta firmly adherent to the right antero-lateral uterine wall. Passing my whole left hand into the vagina and steadying the uterus with the right hand, by working slowly and carefully, I separated the placenta from the uterus. I was compelled to introduce my whole hand into the uterus and found not only universal adhesion to the uterine wall, but also that it extended outward to the right into a funnel-shaped opening, which on manual examination proved to be the right Fallopian tube. The adhesions once thoroughly broken up, the uterus promptly contracted. The placenta and my hand were expelled from it at the same moment. After being thoroughly cleaned up the patient became quite comfortable. Her convalescence, barring her intense headaches, was uneventful, no rise of temperature occurring at any time. The lochia was moderate in quantity and without any odor. At the end of a week she was dismissed as being entirely out of danger.

This case is reported not for the purpose of making an argument for early interference in cases of retained placenta, but as a text for opening up and bringing on a discussion on a subject generally considered as settled by physiologists and obstetricians; viz: where does the ovum in the human female become fecundated?

The process of procreation may be divided into at least three steps:

1st. Ovulation.
2nd. Fecundation.
3rd. Fixation of the fertilized ovum.

According to Leopold and other authorities ovulation, consists in the rupture of a matured Graafian vesicle, which event usually takes place during a menstrual period, but may occur at any time, as in my case and many others on record. Impregnation having occurred without any evidence at all of menstruation.

At the instant of rupture of the vesicle one of two things must occur, either the fimbriated extremity of the Fallopian tube grasps the ovary, and the egg drops into its trumpet-shaped end, or the ovum is carried into the mouth of the tube by a ciliary movement of the epithelium. Once in the tube it is more or less rapidly carried through it to the uterus by the ciliary movement of the epithelium of the tubular mucous mem-

*Read before the Western Association of Obstetrics and Gynecology.

†Professor of the Diseases of Women Kansas City Medical College.

brane. In the rabbit it is said to do so in seventy hours; in the dog in eight days. In the human female the time is unknown. According to the books, after copulation the spermatozoa swarm around the ovum, each one endeavoring to effect an entrance into it. After a time the stronger and more active of the crowd effects an entrance into the ovum, its tail disappears, its head forms the male proneucleous and uniting with the female proneucleous, the act of fecundation is completed. The balance of the spermatozoa lay superfluous on the stage and soon retire from the scene. This is the earliest act in the creative plan, of the survival of the fittest. Everything is now ready for the third stage. The fertilized ovum following some unknown law, or possibly no law at all, either passes down the tube into the uterus where, usually high up on the posterio-lateral wall, sometimes low down, even to or below the internal os, fixation finally occurs. The decidua rapidly rises around it and soon encloses the embryo in a dome-like covering. From this time, the conditions and position being favorable, the development of the fœtus goes on to full term. This as I understand it is the teaching of the physiologists and obstetricians of to-day.

To the first postulate I agree; from the second I dissent. I deny that in man fecundation takes place in the tube. Excepting in those cases where, as a result of disease, the cilia of the tubes have been destroyed over a portion of their length, thus making a break in the highway along which the ovum is carried. The ova, being absolutely passive, remain at rest on being carried to the broken bridge. The spermatozoa, having an independent movement of their own, are able to cross over the damaged portion of the tube, fecundation occurs, fixation takes place, and as a result we have an extra-uterine pregnancy. Normally fertilization takes place in the uterus only, fixation occurring at the same moment and that point becomes later the center of the placental attachment. Should the contact of the two elements occur late when the ovum has descended low in the uterus, to the internal os, or possibly even below that point, we have as a necessary result, placenta previa. This theory or one very similar was, so far as I have knowledge first enunciated by Lowenthal years ago, later I believe by Tait. Permit me to further crave your patience while I give a few reasons for my belief.

1st. All investigations in this direction have been made on the lower animals. Their laws of procreation differ widely from those of man. The female permits the approach of the male only at such times and at such a season as is most favorable to reproduction. Impregnation being accomplished the rut or heat of the female ends at once and promptly. Should fertilization not take place, no sexual desire is manifested until, in the cycle of ovarian changes, impregnation again becomes possible. It is hardly necessary for me to say that in the human animal a somewhat different law seems to govern. It has already been stated that in the dog it has been demonstrated that it requires a period of eight days for the ovum to reach the uterus. I believe that in the human female it requires at least eight days, and in all probability the ovum is at a point where fruitful copulation is still possible for four or five days longer. At least the most favorable time for conception is not less than eight days after the beginning of menstruation.

In evidence of this take the woman whose religion deems her unclean from the first appearance of her period until the beginning of her second week. Yet no greater fecundity has ever been shown than among the Jews in every age and clime; this law like all those of the decalogue or those founded upon it, was one of exceeding wisdom and tended to the conservation of the species by preserving the woman from the dangers of extra-uterine pregnancy. In other words extra-uterine pregnancy is liable to occur under one or the other of the following conditions:

1st. When by reason of the destruction of the cilia in the Fallopian tubes the ovum is prevented from reaching the uterus.

2nd. When copulation occurs immediately preceding menstruation and the spermatozoa reach the ovary even before the rupture of the Graafian vesicle. This also applies to women who ovulate after childbirth without any menstrual flow.

Coming back to my case, the ovum was fecundated while passing through the intra-mural portion of the tube. Fixation occurred near the proximal end of the

tube. In the process of development the placenta extended in the direction of the least resistance; fortunately for the patient this was in the direction of the uterine cavity. An embryo which in the beginning was outside of the uterine cavity later entered the cavity. All the pain during pregnancy and the trouble at the end of the term, resulted from the abnormal point at which fecundation took place. Had fixation or in other words fecundation, occurred a little further out in the tube an extra-uterine pregnancy with rupture into the abdominal cavity would have been inevitable. That all this may be pure theory and without foundation I am ready to admit. Investigation in this line has in the last decade been neglected. One author quotes from another, Lusk from Flint and Flint from some earlier writer. No other scheme so fully accounts for the phenomena of reproduction either normal or abnormal and it calls for no violation of any natural law. Briefly stated it is:

1st. The human ovum is conveyed by the movement of the cilia of the tube from the ovary into the uterus. This process lasting from eight to fourteen days.

2nd. The uterus during this interval has been prepared for its reception and development.

3rd. The ovum on being fertilized after its entrance into the uterus at once becomes fixed. And all things being favorable the development of embryo goes on to term.

4th. That all departures from this law are pathological and not physiological, the exception and not the rule.

SPECIFIC VAGINITIS.*

JNO. G. CECIL, B. S., M. D.†

Several questions relating to different phases of this subject are of sufficient interest and importance to justify further consideration; in truth, it would well become the profession to continue to agitate this well worn theme until some more definite conclusions could be established than can yet be claimed. It is with this end in view that the suggestions embraced in this short paper, are offered, trusting that the discussion may crystallize our present knowledge into more definite shape.

Perhaps a simple enumeration of the possible sequelæ and complications that may arise from specific vaginitis will not be out of place here. There is hardly another disease in the whole catagory of human ills that can boast of such a progeny. A partial list comprises—inflammation and abscess of the vulvo-vaginal glands, vulvitis, endometritis, and endocervicitis, salpingitis, ovaritis, peritonitis, cystitis, pyelitis, nephritis, adenitis, gonorrhœal rheumatism, gonorrhœal ophthalmia, proctitis. Does not this list plead with burning eloquence the gravity, the importance of this disease to the human race, and for the untiring vigilance and zeal of the medical profession in grappling with it? And not only the medical profession but civil authorities as well? The social evil has always existed; judging the future by the past and present it always will exist. I believe that licensed prostitution, with governmental inspection in systematic and regular manner, and compulsory sequestration and treatment by competent physicians will do more to limit the spread of gonorrhœa than any other means yet suggested. It would require years and scores of years of continuous effort to accomplish very many visible results.

This is a contagious disease and must propogate by contagion, its control therefore ought not to be an impossibility, any more so at least, than any other contagious disease. I am forced to conclude that medical men are not as keenly alive to the terrifying consequences and possibilities of this disease as they should be. The popular fallacy that "a clap is no worse than a bad cold" has too many adherents in the ranks of the profession. This seems a justifiable deduction from the careless inspection of new and acute cases, the hasty prescription, the more hasty and imperfect directions as to the

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use of injections, douches, etc., and particularly the acceptance of a statement from the patient that the cure is complete, in lieu of a thorough and pains-taking examination of every surface or canal involved. A valuable clinical point in differential diagnosis between simple and specific vaginitis that is agreed upon by modern authorities is that urethritis or endocervicitis, or both, are always present in gonorrhœal vaginitis.

As to the pathology of specific vaginitis we are still in perplexity. For many years after the discovery of Neisser we made obeisance to his gonococcus, but at present it appears to be the consensus of opinion that something in addition to the presence of Neisser's bacillus is necessary to the development of gonorrhœa. What that something is constitutes the perplexing question. Experiments made by Neisser, Krausé, Löffler, Bouchard, Burner and others demonstrate the failure of pure culture of the gonococcus to produce gonorrhœa.

The question as to how long the specific virus of gonorrhœa may retain its activity in the genital cavities is one of exceeding interest and importance, and one to which I have seen no conclusive answer. This question is often put relative to a prospective marriage, or as to how soon after an acute specific inflammation of the vagina and urethra should a prostitute resume her avocation. It will be difficult to formulate a law applicable to all cases. Certain it is however that gonorrhœal virus of propagating activity may lurk in the various pockets and glands long after all subjective symptoms have subsided. Herein lies the particular necessity for a searching examination of every gonorrhœal patient before final discharge. This clinical fact is also the probable explanation of the auto-infection of puerperal women, a class of cases that make much work for the pelvic surgeon.

TREATMENT:

Under this heading it would be difficult, even if it were necessary to suggest anything new pertaining to medicaments. I am prepared to admit that many of the different lines of treatment at present in vogue are efficient. The success or failure of any particular method of management depends more upon the guiding hand and the strict adherence to directions explicitly given, than upon the medicine used. Many of the popular prescriptions and injections will be found satisfactory provided the details of management are faithfully carried out.

Given a case of acute gonorrhœal vaginitis, it is well to divide the treatment into three stages. First—in the initial stage of acute suffering with active inflammation, the treatment should be of soothing character, the injections of very mild solution and given in large quantity, nothing is preferable to corrosive sublimate in strength of 1 to 10,000 given warm, and with it an anodyne such as cocaine or morphine if necessary to relieve pain. Diluent drinks are serviceable and rest is imperatively demanded. Second—after the acute symptoms have subsided the treatment should then be more vigorous and active. The strength of the douche should be increased to 1 to 2,000 or 3,000 of corrosive sublimate and administered twice or three times in twenty-four hours. It is just at this point in the treatment of a case that the discipline necessary to a complete cure is likely to be relaxed—the suffering gone or relieved, the patient naturally concludes that strict attention to directions is no longer obligatory. Many cease the treatment altogether and so are only half cured, or really are not cured at all, but go to fill up the ranks of chronic or latent gonorrhœas. Another point that should be most strenuously enjoined is the proper method of administering the douche. The fountain syringe or douche-can should be used in order that large quantities may be given; the douche point should be of glass and should be immersed in a carbolic acid solution when not in use. The patient must be in the dorsal decubitus with hips elevated. The doctor ought to give the first douche himself and so instruct the nurse who is in charge of the case as to the exact detail of each subsequent douche. The glass point is introduced the entire depth of the vagina and with two fingers of the disengaged hand, every pocket or cul de sac, and the sulci between the vaginal rugæ are opened up or spread out so that the medicated wash reaches every part of the diseased surface. It is apparent that no woman can properly administer a douche to herself. After the injection a tampon of iodoform gauze is left against the cervix uteri. For the accompanying urethritis a pencil of iodoform is

left in the urethra, twice daily. Third—if chronic vaginal inflammation or cervical catarrah persist after a treatment carried out in thoroughness of detail as above indicated, it is probably due to extension of the disease into the cervical or uterine cavity, and attention is now directed to these localities. Treatment now to be efficient must be radical. Cervical dilatation followed by curettage with a sharp curette to the extent of destruction of the lining mucosa, or Schroeder's operation of excision of the cervical mucous membrane are indicated as the best methods of curing chronic or latent vaginitis due to gonorrhœa.

Management of specific vaginitis as above suggested will assuredly result in fewer cases that are pronounced incurable, and in fewer cases that by extension of the infection to the Fallopian tubes and ovaries, are relegated to the pelvic surgeon for permanent relief only after irreparable damage has been done.

SOCIETY REPORTS.

THE CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting of February 7th, 1893.

The Vice-President, Dr. J. M. Krim, in the Chair.

SPASTIC PARALYSIS FROM CENTRAL LESION.

Dr. W. O. Roberts: This patient is eight months old. At the time of its birth the mother had a hard and protracted labor and was delivered with instruments. She noticed soon after birth of the child that it did not seem to have any use of one arm, that it seemed to be turned or twisted to one side, the arm was abducted and rotated inward. Six months after birth (two months ago) the child was taken to a surgeon in a neighboring city, who said there was dislocation of the shoulder and a fracture of the forearm. He worked with it, put it into splints and had it under treatment for six weeks; the splints were removed after he went home. The family say that the arm is in much better condition than when this gentleman saw it. By examination now you will notice that movements of the elbow are very good, as are those also of the wrist; pronation and supination seem to be all right. But there is limited motion at the shoulder joint, and in examining the axilla you will find that the pectoralis minor muscle is tightly contracted. The hand on the affected side is very much smaller than that of the other side and the fingers are in a flexed condition, but can be straightened out. There is little or no difference in the size of the two arms.

A peculiar feature of the case is that the anterior fontanelle is entirely closed, which rarely happens at the age of eight months.

DISCUSSION.

Dr. T. P. Satterwaite: I think the case is one of spinal trouble. It is not an uncommon thing for children to be born with paralysis of some of the muscles. There was a gentleman in this city born with paralysis of the deltoid muscle, and that was the only muscle in the arm that was paralyzed. When I saw the the case the man was about 35 years of age, and had never had any use of that muscle. This case is one of central nerve lesion.

Dr. W. O. Roberts: The doctor who saw this case claims to have reduced two dislocations and set a fracture. There is now apparently no evidence of a fracture having existed, no callous or anything pointing toward fracture, and it has only been two months since he first saw the child.

Dr. J. G. Cecil: I hardly know what to say about the case; the history is so uncertain; having to depend on the family to give an account of an obstetrical case makes it a very unsatisfactory and uncertain sort of history. It struck me at first that it must have been simply a dislocation of the shoulder, which had been produced

in the delivery. As you know we sometimes have difficulty in the delivery of the shoulders even after the head has passed with comparative ease. I saw in consultation a case not very long ago of forceps delivery, in which there was an occipito-posterior position, delivered with forceps after pretty hard effort, and the shoulders failed to rotate into the antero-posterior diameter of the outlet making delivery very difficult, so much so that both my consultant and myself thought it very probable that there would be injury to the shoulder joint but fortunately even although we had to use considerable force in the delivery of the shoulders, no injury was done. I can very readily see how in this case there might have been detention of the shoulders, and a blunt hook could have been introduced in the axillary cavity and the consequent injury from this procedure. But if there has been a dislocation of the shoulder, I fully agree with Roberts that there ought to be more evidence of it now. The reduction of a shoulder joint dislocation in a child, after six months standing, would most certainly show more evidence than we find here.

The question as to whether it is central lesion or spinal trouble is one that seems to me to be in a good deal of doubt. I thought from the peculiar crease upon the child's head that possibly it might have been the result of forceps injury, but the mother says the head was not marked at all by instruments. It is also unusual that the anterior fontanelle should be entirely closed at the age of eight months, yet I cannot see how that would have any effect upon the subsequent history of the child, except by possible interference with development of the brain. The history is so uncertain that it seems to me it would be very hard to get at a correct diagnosis in this case.

Dr. W. O. Roberts: I cannot think that there was any dislocation, because had there been the arm would not have been brought close to the side twisted in this way, it would have stood out more. It is a case of spastic paralysis from central lesion. I think the physician who treated the case simply improved the position of the arm by stretching the contraction. Then again the wasting of the hand and drawing in of the fingers would indicate central trouble.

As to treatment, now that is a point of considerable interest as to whether passive motion, massage and stretching these contracted muscles will overcome the rigidity, or whether it would be better to divide the muscle in the axilla. My idea is the best plan of treatment would be passive motion with electricity and massage for a couple of months, and then if the trouble is not overcome, divide the muscle and stretch it. That will give motion to the shoulder, then of course the muscles of the arm and forearm will have to be tested with electricity to see whether there is any paralysis.

Dr. J. G. Cecil presented "Specific Vaginitis" as the subject for the regular discussion (see page 410.)

DISCUSSION.

Dr. F. C. Simpson: (visiting) I no not think there is any question about numbers of these cases going on for months from no other cause than negligence in treatment. As Dr. Cecil says the difficulty is to get at all portions of the vaginal canal. I believe this can be done if the case is properly managed. Physicians, I believe, are often very negligent on this point, which may account for numbers of cases being reported cured and afterward develop some pelvic trouble. I think it is advisable in these cases to take a sample of the discharge and have it microscopically examined to see whether all the gonococci have been destroyed. The trouble might apparently be cured, still from lack of thoroughness, if any of the gonococci remained in any part of the canal or in the uterus, there will be a return of the symptoms, possibly with such severity as to require operative interference.

Dr. P. Gunterman: Dr. Cecil has said about all there is to be said upon the subject. I do not agree as far as my experience and reading goes, with the statement that urethritis is always present in specific vaginitis, but I do believe that cervicitis is always present, which I believe should be treated the same as vaginitis with douchings, and then you can make local applications to the cervix carrying them up into the body of the uterus if necessary. A solution of corrosive sublimate I think is considered best by all authorities for use as douche in these cases, weak at first and the strength increased afterward. I agree with Dr. Simpson that it is advisable in these cases to have

the secretion microscopically examined and think it should be done by a very competent man, and even then there is doubt in my mind whether it can be proven in all cases that the vaginitis is gonorrhœal in origin, as there is another coccus which so nearly simulates the gonococus that they cannot always be differentiated.

Dr. L. S. McMurtry: I think Dr. Cecil's paper is most opportune indeed. Until very recently the profession has regarded gonorrhœa in the female as a trivial disease. There is a large proportion of the profession, even at the present time that, make no discrimination between leucorrhœa of simple catarrhal character and specific vaginitis, all cases being treated as leucorrhœa. It seems to me that the time has come when more attention should be directed toward the prevention of the severe sequelæ of gonorrhœa—prosalypinx, ovaritis, suppurative peritonitis, which require abdominal section—by giving careful attention to its treatment in its incipiency. It is rather exceptional for patients with gonorrhœa to seek medical aid early in the attack. I was greatly pleased to see that Dr. Cecil has interpolated on the back of one of his pages the sentence that "specific vaginitis as a rule is accompanied by urethritis" and was surprised to hear such a close observer and profound student as Dr. Gunterman say that he did not agree with the essayist in that particular. It has certainly been my observation that specific vaginitis is invariable accompanied by severe urethritis.

The greatest defect I think in the treat- of specific vaginitis, as mentioned by the essayist, has always been that the physician treats these cases in a very desultory manner, advising the patient to use a vaginal douche, yet does not instruct her how to do so properly. It seems like a very simple thing to discuss at length, but it is a fact that very few practitioners inform a woman as to the position they should assume in taking a vaginal douche; that sitting over a basin and using a syringe forces down all pelvic organs preventing access to the folds of the vagina. I think a fountain syringe preferable to any other for this purpose. Instead of sitting over a basin the patient ahould be in a semi-recumbent position with a rubber cloth such as can be found in almost every house under her hips, which should be slightly elevated, then the nozzle of the syringe can be introduced into the vagina so as to reach all the surface. I have very grave doubts as to whether any woman is competent to treat herself by vaginal douches for gonorrhœa, efficiently. The treatment of this disease is the same as the treatment of an abscess, and ought to be so regarded. I am losing my faith in antiseptie injections to cure gonorrhœa. I doubt very much whether 1 to 10,000 solution of bichloride of mercury can make much impression upon virulent gonorrhœa; I believe that everything which is accomplished is done by flushing and by drainage. If you use simply hot water, placing the patient in the proper position, using two fingers in the manner described by Dr. Cecil, thoroughly flushing the vaginal surface, much good can be accomplished; and the oftener it is done the better. If you have the patients under control and can get them to devote themselves to it, I think the vagina should be flushed with hot water from four to six times in the twenty-four hours during the acute stage; then pass a piece of iodoform gauze up to the cervix so as to encourage drainage all the time in the intervals between—if this line of treatment could be followed out our results in the acute stage would be more satisfactory. Of course this is sometimes impracticable, and as long as treatment is neglected or imperfectly carried out, there will be a great many cases followed by endometritis, salpingitis, and peritonitis.

There is one point upon which I must differ with the essayist; that is, I do not believe we ought to open up the cervical canal and interior of the uterus until the indications for it are positive. By opening up these surfaces we may readily spread the infection over a field not yet invaded.

Dr. J. G. Cecil: In the paper I divided this subject into three stages, and indicated treatment accordingly; for the first stage I suggested that the solution of bichloride should be very mild 1 to 10,000 until after the acute symptoms had subsided, perhaps a week or two, then to attack the sub-acute condition with a stronger solution, 1 to 2,000 or 1 to 3,000, and after that the third stage.

Dr. Geo. W. Griffiths: Do you not use acetate of lead and the other drugs

that are known to produce good results in these cases?

Dr. J. G. Cecil: I stated that I believed the successful treatment of gonorrhœa depended more upon thoroughness of detail in the management than upon the medicine used; that I was certain in my own mind that nearly all of the popular prescriptions would be followed by success if directions explicitly given by the physician were thoroughly carried out by the patient and her nurse. I have confidence in a good many drugs, and simply referred to corrosive sublimate as probably the best.

Concerning the douche point: I really do not think it makes much difference what kind of a point is used, or in what direction the current flows, but the important point is to get the medicated wash, whatever you are using, to every part of the diseased surface, and that is why I dwelt upon so simple a matter as giving a douche. It is a well known fact that if you allow a woman to squat down over a vessel and give herself an injection with an ordinary syringe, with any kind of a douche point, whether the current runs one way or the other, there will likely be parts of the vaginal surface that will not be reached at all, hence chronic gonorrhœa will result, and it will exist indefinitely unless a thorough line of treatment is persevered in. When a woman sits down over a vessel a portion of the vagina is practically shut off, and this is why I described so minutely the manner of taking two fingers and spreading out every part and fold of the vagina, having the patient in the dorsal decubitus with the hips slightly elevated; in this way you can be sure that the solution is carried to every part of the vaginal tract, and unless done in this way I do not think you can be positive that the douching has been thoroughly accomplished.

I do not know what proportion of cases of salpingitis, pyo-salpinx and pelvic peritonitis or abscess are due to gonorrhœa, directly or indirectly, but any one reading over a list of cases where trouble has been taken to ascertain whether or not there was the previous history of gonorrhœa, it is simply astonishing to find how many of such cases give such a history, and for that reason it seems to me the importance of this matter can hardly be exaggerated. I think Dr. McMurtry, and all men who do pelvic surgery, will appreciate the importance of prevention. Certainly it is better if we can cure a case, and I admit all he says about the difficulty, and for that reason I took occasion to run off on to side-issues and say that I thought government control ought to be established over prostitutes as they are the ones who promulgate the disease. We may not be able to exterminate it, but if we can prevent it becoming chronic and extending to the upper and more remote genital passages, we are doing a great service to humanity.

The subject of the suppression or cure of this disease is one I have often thought of, and one that I am glad to see has very recently been seriously agitated. In yesterday's *Record* I noticed an editorial on this subject, and in the last week's *News* another editorial upon the recent article of Neisser as to the proper management, control and suppression of gonorrhœa. I do not know how to express in words what the importance of this subject is to the human race at large. When we see all of this train of complications and after results of gonorrhœa, we certainly cannot exaggerate it. I believe most of us will admit that we are often very negligent in the treatment of cases of gonorrhœa. Gonorrhœa in women is infinitely more serious than it is in men and we all know from recent discussions, if we have not known it before, what terrible results follow the neglect of proper treatment in the male, but in the female it is infinitely more so. Consequently I believe a continued agitation of the subject especially called for, and by bringing it to the minds of the medical public generally, good results will come.

In regard to the point mentioned by Dr. Gunterman: I think he will find recent authorities all agree that urethritis is an invariable accompaniment of specific vaginitis. That is really the only differential diagnostic point that can be made clinically, between simple and specific vaginitis.

I do not know whether Dr. McMurtry in his remarks concerning the treatment of cervicitis caught my meaning exactly, so it will perhaps be well to state it over: If he will recall the paper, I stated that after you had treated in an active and vigorous way the sub-acute symptoms of gonorrhœa with douche and with an iodoform pencil

in the urethra; if after all that you found that the gonorrhœa or vaginitis continued, an examination in that case would likely discover a cervical catarrh. After you have used the douche thoroughly for a length of time sufficient to cure; after you have used the iodoform plug in the cervix in order to favor drainage, then to cure the cervical catarrh which keeps up the specific vaginitis, I favor as the third stage of treatment a vigorous attack upon the cervical mucous membrane. My observation in the treatment of gonorrhœa, quite extensive I may say, because I have had the opportunities for six or seven years in the clinic at the University of Louisville to see a great many cases of cervical catarrh, leads me to believe from the class of patients presenting, that they were generally gonorrhœal in origin, and that ordinary treatment did them but very little good. I am thoroughly conscious of the fact that it is dangerous to invade the uterine cavity unless it is urgently demanded. I am equally certain that cases of cervical catarrh of the kind I have just mentioned did not yield to vaginal treatment, and am pretty well satisfied that a thorough destruction of the cervical mu cous membrane, which as you know is studded with follicles, is necessary in almost every case to effect a cure.

Now with proper precautions I believe that curetting can be done without fear of further infection. I think the woman is in greater danger of infection from extension of the disease to the higher cavities, the womb, tubes, etc., by allowing the catarrh to remain, or by temporizing with it by medicated washes, etc., than if you, under the proper precautions, use the sharp curette. I have seen such results from the use of the sharp curette in the cervix —in fact I do not remember ever to have seen a bad result—that I am inclined to advocate this treatment for the relief of all cases of obstinate cervical catarrh, by this means getting rid of the disease with the destruction of the mucous membrane.

Dr. J. M. Krim: Do you make any application to the surface after curetting?

Dr. J. G. Cecil: I do not believe any application is necessary; further I do not think any curetting short of the destruction of Naboth's glands will cure the case, as gonorrhœa may lurk in these glands and nothing short of their complete destruction will have a permanent effect. However it is not a bad plan to follow curettage with a caustic like nitrate of silver.

Dr. J. M. Krim: By doing this it would certainly seal the raw surface and prevent any further infection from gonorrhœa. I think in these cases plain hot water for douchings without any bichlorides will do just as well. I have used bichloride solution in the male for gonorrhœa of strength 1 to 10,000 with no bad effects as far as the injections were concerned, but I never found that this treatment was any more successful than plain hot water.

Reproduction of Printed Matter, Engravings, Etc.

The *Moniteur Industrielle* gives the three following methods: M. Breton exposes the face of the print to be copied to the vapors of iodine, and then applies it face downward to a polished zinc plate. After contact for awhile the print is removed. The zinc is then printed from exactly as though it were a prepared lithographic stone. M. Balagny reproduces leaves of books, etc., by placing under each leaf a film of sensitized gelatin and exposing it to the light. The gelatin film is then used to print from exactly as in the carbon print process. Finally M. Ginestet, of the Department of Public Works, of Paris, soaks the page of print, the design or drawing in acidulated water for awhile, and after draining off, applies it to zinc or lithographic stone. After contact the design is removed, and the zinc or stone printed from in the usual way.—*Ex.*

For Cementing Iron.

The following mixture for cementing iron is strongly recommended: Equal parts of sulphur and white lead, with about one-sixth proportion of borax, are the constituents of the mixture, and the three should be thoroughly incorporated together so as to form one homogeneous mass. When the composition is to be applied it should be wetted with strong sulphuric acid, and a thin layer of it should be placed between the two pieces of iron to be connected, these being at once pressed together. This cement will hold so firmly as to resist the blows of a steam-hammer, and dry so completely in a few days as to leave no trace of the cement, the work then presenting the appearance of welding.—*Ex.*

CORRESPONDENCE.

MEDICAL COLLEGES AND SMALL CITIES.

MR. EDITOR:—It is both a significant and deplorable fact that the great cities of the United States have the fewest Medical Colleges both relatively and absolutely. New York has three, Philadelphia three and Chicago three. Yet such small cities as Louisville and Cincinnati are blessed with four each, and such small villages as Ft. Wayne, Ind., and Keokuk, Iowa, have one each. Joplin, a little hamlet out in Missouri, did, for a short time, sport something which the good-natured inhabitants pointed to with pride as their medical college, but the cold and unfeeling Illinois Board of Health sat down on it and Lo! it was not. As Artemus Ward said: "Why is this thusly?" Surely if New York, Philadelphia and Chicago, with their three million and more of population, centered in states representing, in the aggregate, nearly ten million people can get along with three schools each, small villages, located within the glare of their electric lights, ought not to consider the world totally bereft of knowledge if they should be found with no medical college at all.

There is a great tendency in both the South and West to multiply schools of all kinds. It does not occur to them to concentrate capital and energy at a few large centers of population where the emoluments of business are so large and gratifying that both talent and superior attainments can afford to be found. Vanity and avarice alike encourage this state of affairs.

We have no hereditary titles of nobility in this country. In the West and South the rage for titles is almost epidemic. All cannot be justices of the peace or "squires." There are a few of the rising generation who were not in the army and who do not belong to the G. A. R., hence fail to reach the proud distinction of Captain or Colonel. But there are one or two titles which are as common as walnut hulls around a country school house. These are Doctor and Professor. Hence the great demand for something cheap in the way of a school by those who aspire to the title of doctor, and the eagerness to supply this demand by those who wish to stagger along under the learned appellation of professor. True the "hoss" doctor, the "writin'" master and the "deestrict" school teacher are all called professor by an admiring and accommodating public, but knights of the fleam and the ferule receive their accolade on account of useful knowledge which is indispensable to their calling. Is the veterinary ignorant? then some old horse may die from lack of that help which he ought to be able to give, and his rustic owner lose forty or fifty dollars. Is the young teacher lacking in knowledge of the three R's? then some budding genius may be nipped by the frosts of ignorance because not properly tutored by the rising pedagogue. Not thus is the average professor in the village medical college. His one positive and enduring attribute, which stands out in bold relief, is not unfrequently a large, thick, dark stratified quality of ignorance. True, he now and then tries to hide it from the senior class of two or three, with a large translucent label of conservatism—and sometimes succeeds. Then when his classes graduate consultations are multiplied even if the multiplier be not very large.

By being known as a teacher in a college, people who can not make distinction between the little one-horse institutions with a graduating class of two and a matriculation of some twenty-five or thirty, and some great and amply endowed school like the University of Pennsylvania or the Michigan University, suppose that a Professor is a Professor anywhere and are thus often led to believe that a great man resides among them.

But the advancement of mediocrity into a large practice or into places of honor, and then fastening on a title like tying a tin can on a dog's tail, is not the worst nor the only evil inflicted by the multiplying of opportunities for superficial students to slip into practice easily. Cheap doctors are made abundant, and the struggle for existence becoming sharper and sharper, competent men are discouraged, and stay out of a profession

that exhibits such a contest between bread-and-butter scramblers and scientific enthusiasts who look upon sordid motives as always subordinate to the pursuit of truth, and the evolution of methods tending to ameliorate the ills that flesh is heir to.

It is the great number of small, weak, insufficiently endowed, meagerly attended and poorly equipped medical schools that has kept medical education at a stand still for so long, and that has set a standard of attainments for graduation so low that a diploma from most of them has no more force and commands no more respect than a patent medicine certificate. It is the mighty array of these schools, whose name is legion, that has kept off the statute books much needed legislation regulating the teaching and the practice of medicine.

In a condition of society such as existed a few decades ago, there might have been some excuse for the existence of inferior medical schools in a few of the smaller cities. The country was filling up rapidly and the sparsely settled districts needed a supply of cheap and ready doctors. Opportunities for medical education did not then differ so much in the larger from what they were in the smaller cities. The sciences auxiliary to medicine were neither developed, studied nor taught as they are now. Clinical instruction was almost unknown,and obstetrics was taught in a very imperfect and theoretical way only. Didactic lectures supplemented by a course of reading in text books constituted the curriculum in almost universal enforcement. This regime could be carried out in a city of moderate size as well as in a more pretentious one.

But modern medicine as it is taught, has enlarged its field, changed its methods, improved its facilities and added to its curriculum until great centers of population and immense moneyed endowments are absolutely essential to meet the much greater demands which our rapidly advancing civilization is constantly enhancing.

There is another and graver condition of things brought about by trying to organize and equip a medical school in every little place that has a post-office and a railroad. It gives our homœpathic brethren the power to get a higher average in the attainments of their graduates, and often we have to blush for ourselves instead of our irregular competitors. They are comparatively few in numbers, hence can only afford to support a medical school in a large city like Philadelphia, New York, Boston or Chicago. In cities of this size their clinical advantages are great; and, having to compete with the University, Jefferson, The Rush or Harvard, they are compelled to set an equally high standard for graduation. Thus it happens that the alumnus of a school like the Hahnneman of Philadelphia with its three years course of study, and the clinical advantages of the great hospitals of the city like Blockley and the Pennsylvania, turns up his nose, and justly too, at the graduate of some little two year institution located at Grubses' Mill or some other little Southern or Western town, though it be ever so "regular." It would be far better for the profession and for mankind in general, if a law was passed authorizing any man after he had practiced five or ten years to take his choice of titles as Col., Capt., Prof. or "Squire."—In order to be perfectly just we might save the title of "Squire" for the midwives.—Under such a regime as this the rage for titles, the hunger for artificial distinctions might be approved without organized robbery. For when a lot of old bald-headed antediluvians in some little town get together and organize themselves into a mutual admiration society and call it a medical college, they pass one another on the street as often as possible thereafter, and spread their ears out like a palm-leaf-fan to catch the greeting: "Good morning Professor! Fine day Professor!" Then the Professah bows and smiles, and gets up against something and rubs himself—he feels so good. If the gratifica ion of childish vanity was the only result of these cheap John schools there would not be so much to regret. But when men take a young man's money and are unable to do more in the way of tutoring than mix a few vulgar anecdotes with some ancient history and a few quotations from the scriptures; when the clinical advantages consist possibly of a fracture or two, a case of phimosis and a few cases of pediculi and intermittent fever, they also rob students of their time.

Let us have fewer Professors and more teachers. Let us have fewer schools and richer endowments. Let us keep the advancement of scientific medicine more to

the front and ourselves more in the back ground. Let us work more and quarrel less. Let teachers be selected for what they have done and not for what some rich relative *can do*. Let schools be organized for the benefit of the student and those he must treat, and not to push forward some scion of wealth or some master of medical skull-duggery.

Then no respectable sheep will be ashamed to see his skin converted into a diploma. Then may the teaching and licensing power be entrusted to the same body. Then will the Irregular lamb and the Regular lion lay down together—with the lamb inside—Selah!

Wm. H. Link, M. D.

Petersburg, Ind.

NEW YORK LETTER.*

About a month ago, at a meeting of the Section on Obstetrics and Gynecology at the Academy of Medicine, Dr. E. H. Grandin read a paper on the "Treatment of Purulent Puerperal Peritonitis." The exceedingly high death rate of this disease added interest to the interesting paper presented. Dr. Grandin said that fifteen years ago it was the practice to treat all cases of puerperal peritonitis with opium. He followed out this plan of treatment in several cases and all died. Later on the saline method of treatment prevailed, and he tried this in a considerable number of cases with a mortality similar to that he got from the use of opium. During the last few years he has resorted to laparotomy, and in a series of four cases has saved two of the patients. In all the cases symptoms of peritonitis came on soon after confinement, and his earlier experience had taught him that it was useless to resort to opium or to the saline treatment.

In the first patient upon whom he operated, he found a large abscess in the left side of the peritoneal cavity and communicating with the uterine cavity. This was complicated with general peritonitis. He washed out the cavity and drained it by means of a tube through the uterus. This patient recovered.

The next two cases had general purulent peritonitis and both died in spite of the operation. The fourth case was of the same nature, but fluctuation could be felt above Poupart's ligament on the left side. The patient survived the operation and at present is doing well.

Dr. Grandin considers that fifty per cent. is a high mortality, but that it is far better than the results obtained under the old method of treatment. He said that the high mortality of this disease was due to general systemic infection which preceded the peritonitis. Notwithstanding that a patient's chances are very small when purulent peritonitis sets in, it is well to do an abdominal section as the purulent collection may not be general.

In the discussion which followed Dr. Van Ramdohr said that it was certainly right to evacuate pus wherever it was found, but that in general purulent peritonitis the patient would die anyway, and if it were not purulent such remedies as alcohol would pull her through. A general purulent peritonitis cannot be diagnosed from one that is not purulent.

Dr. Edebohl believed all that the author of the paper had said. He has lost the patients upon whom he performed cœliotomy for general purulent peritonitis; it was not from the effects of the operation, but from the peritonitis.

Dr. Collyer thought that the author was correct in his views, and that his paper would set the profession thinking on this point.

Dr. Garrigues said there was no possible way of telling whether or not a peritonitis were purulent, and if it were purulent, whether or not it were local; of course, if it were local the pus should be evacuated by surgical procedure. He mentioned his list of thirteen cases of general puerpural purulent peritonitis, all of whom he treated with opium and succeeded in saving seven of them.

Dr. Grandin closed the discussion by saying that in the series of cases which he mentioned, there were collections of pus throughout the general peritoneal cavity, hence it would have been impossible to

*Special Correspondent to The Medical and Surgical Reporter.

cure the cases with alcohol, opium, or salines; that these same remedies would be of no service in a localized peritonitis, and since, when a diagnosis of general purulent peritonitis was made, abdominal section might show the process to be local, he thought that one was justified in opening the peritoneal cavity.

* * *

At a meeting of the Section on Surgery at the Academy, some time ago, the president, Professor Joseph D. Bryant exhibited a man whom he cured of a large aneurysm of the external iliac artery. The patient was thirty-five years old, with a syphilitic history. Two years ago while supporting a heavy weight on his right side he felt a boring pain in the right side of his abdomen, and soon there developed a pulsating tumor in this locality. The man had been treated by other surgeons before coming to Dr. Bryant, one of whom introduced twenty yards of fine wire through a canula, for the purpose of forming a clot. Treatment by compression was also tried but both of these methods failed and the tumor continued to pulsate and to give pain from its pressure effects on the lumbar nerves.

The patient came to Dr. Bryant about seven months ago. At that time the tumor was the size of a large cocoa-nut, distinctly showed an expansile pulsation synchronous with the ventricular systole, and a bruit could be heard over the tumor and transmitted down over the course of the femoral artery.

It was at once seen that the patient's condition was serious and it was decided to try McEwen's method for the cure of the aneurysm. Several long steel needles were made, varying in diameter from one-half to one millimeter. A couple of the smaller needles were first introduced, until their points reached the opposite interior wall of the sac. With each pulse-beat the needles were moved, their points irritated the interior of the sac and thus set up an inflammatory process, and from this a white thrombus formed. The location of the irritation was changed every ten or fifteen minutes until the whole lining of the sac had been gone over. These needles were left in for twenty-four hours, but no change in the tumor seemed to result. A week later two of the larger needles were inserted and left in for forty-eight hours. In a few days after their removal, the bruit lessened and gradually disappeared, the tumor diminished in size, the pulsation gradually became less pronounced and the man ceased to complain of pain.

This case has interested the surgeons of the city considerably, as not many cases of cure by McEwen's method have been reported, and because of the high mortality attending aneurysms in the large cavities.

After-Effects of Chloroform.

Luther (*Münch. med. Woch.*, January 3, 1893), says that changes are found in the kidneys after death by chloroform, however produced. He says that almost after every administration, especially if prolonged, albumen and casts appear in the urine. The author has found that (1) the urine was normal when no after-effects, such as vomiting, etc., were present; (2) of many cases examined, the after-effects were most marked in the single case in which abnormal constituents were found in the urine; (3) albuminuria and cylinduria go hand in hand, and disappear after a few days, and (4) the casts are mostly hyaline. He concludes for these reasons that (1) the use of chloroform should be limited to cases where it is necessary; (2) in every case before prolonged narcosis the urine should be examined, renal diseases being a more important contra-indication than heart disease (except fatty heart); (3) chloroform narcosis should be restricted in the case of the pregnant and lying-in, and it should be absolutely avoided in eclampsia, since it must be prolonged, and the kidneys are nearly always diseased; and (4) mild diuretics are of value in the after-effects of chloroform.—*British Med. Journal.*

Glycerin Jelly for Mounting

Microscopical preparations is best prepared, according to J. E. Huber (*Phar. Centralh.*), by excluding water altogether. Macerate 1 dram of gelatin in 12 drams of glycerin, and after 12 hours effect solution by the aid of a water bath. The specimens to be mounted are first soaked in dilute and then pure glycerin. They are then placed on the slide with the least possible dilute glycerin and then covered with the liquified jelly.—*Western Drug.*

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SATURDAY, MARCH 18TH, 1893.

EDITORIAL.

CHOLERA THIS SEASON.

Preventive Medicine and the Germ Theory are the crowning triumphs of the nineteenth century.

While the germ theory has taught us but little in the way of therapy, it has placed the science of prophylaxis on an eminence never before attained. The ounce of prevention has come to be worth *several pounds of cure.*

In view of the possible, nay probable, epidemic of cholera during the hot season just ahead of us, it behooves us as a people, both in the aggregate and segregate, to preach, practice and enforce all the means of prevention within our knowledge or power. This is a form of charity in which we need not fear to let our right hand know what our left hand does. Let those in large cities whose duty it is to look after the health of the inhabitants see to it that the cities are put in the very best possible sanitary condition. In this connection the words clean and sanitary are synonyms. Let the fat alderman "with fair round belly with good capon lined" stop the amber stream of lager long enough to consider for a moment the welfare of the tax-payers whose money he delights to spend.

Let the small towns clean up their yards and outhouses. Let them abolish the stinking pig sty whose odor exhaleth to heaven, whose muddy floor offers a free soil, a good culture medium and fine homestead law for any wandering cholera spirillium or diphtheritic coccus that chooses to stake off a claim and "prove up" in a quarter section of such inviting territory.

The water supply of both cities and small towns should be looked after with scrupulous care, and where the source of supply is likely to be contaminated, the people should be instructed to boil all that is used for drinking purposes.

With our present knowledge of the comma bacillus, and how to destroy it, we can act with intelligence and effect in our efforts to ward off the coming pestilence. Now is the time to act. Now is the time to get scared. "Let us act in the living present."

There is reason to fear an epidemic from either or both of two sources. The germs of last year may lie dormant till favorable weather appears when they can get a foothold that can scarcely be eradicated. Again, infection may come along the lines of travel and commerce and easily slip past the scattered cordons of quarantine.

But in order that there may be no mistake made when cholera does appear, or when diseases which simulate it make their presence felt in our midst, all physicians in commercial metropolis, at least, should make themselves familiar with both the natural history and the bacteriology of the disease in order that a panic may not grow out of some simple case of belly ache; and, on the other hand, that no precautions to avoid contagion may be neglected in the presence of the real disease under the impression that only a case of ordinary cholera nostras is to be conquered.

Sternburg has lately shown that sunshine is one of the very best destructive agencies which the comma spirillium can be exposed to. Let us turn on the sunlight. It is both cheap and plentiful.

TRANSLATIONS.

A Report of Purperal Cases of the Munchener Franenklinik, 1877 to '91.*

According to Dr. Madlener, during the years 1887 to 1891, there were 4,000 pregnant women cared for; 3,944 of these were delivered at the Maternity, 55 were admitted during or immediately after labor; 27 died, a mortality of 0.67 per cent. Ten died of puerperal infection, 5 from rupture of the uterus, 3 from eclampsia, 2 from access of air into the uterine veins, 1 from sublimate poisoning, 2 from acute anæmia, 1 from carcinoma of the ovaries, 1 from pneumonia, 2 from cardiac trouble. Death occurred in 3, during labor, 2 immediately after completion of labor, 22 during the later period of the puerperium.

In the 27 fatal cases there were 13 operated upon. Of the 10 infected cases, 2 can be excluded since the infection took place before they were admitted.

The rules for the disinfection of the patient are: First, bath, then douche and enema with the use of plenty of soap and a 5 per cent. solution of carbolic acid, followed by vaginal injection of 1 metre of sublimate solution of 1 to 1,000. Before examination the hands and forearms are washed and brushed for 3 minutes in warm water, then 1 minute in 5 per cent. of carbolic acid solution, special attention being given to the nails; lastly, the hands are again washed and brushed in a sublimate solution of 1 to 1,000. Lysol has been found unreliable in these cases. During the labor injections are used only when strictly indicated; in normal labor irrigation is not used. After instrumental delivery the vagina is washed out with sublimate solution of 1 to 1,000. This is also done where intra-uterine manipulation may become necessary. Hot douches minus the sublimate solution are often used. The author speaks, in detail, of various methods for disinfection used in all the German Maternities, which show but very little differences. It is notable, however, that those who have a rise of temperature are not isolated and have no separate nurses. On the other hand, however, they have their own vaginal tube, thermometer, catheter and bed pan, and are instructed to wash themselves. Madlener finally gives an explicit history of the fatal puerperal cases. 6 cases suffered from metro-lymphangitis ; 1 case from thrombus producing metro-phlebitis; 1 case showed symptoms of both; in 2 cases it was impossible to find either a lymphatic or venous complication. In these cases there had been great anæmia following placenta prævia. He finds that the above cases followed a distinctive course. The metro-lymphangitis proved fatal in from three to fifteen days; clinically peritonitis seemed to be the first symptom,

*Translated for the MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

fever being high, showing very little remission. Chills were noticed in 4 out of 6 cases, pulse usually rapid, never less than a hundred. It is rather the rule than the exception to find ulcers at the entrance of the vagina; the lochia were fetid. In the metro-phlebitis cases there was an absence of the peritonitis symptom, fever began without a chill and showed no remission. The chills set in a week after, taking at times the remittent type and at other times the intermittent. The length of time in illness was forty-seven days. In the 5 cases of rupture of the uterus, 3 were due to violence and 2 were spontaneous. The first resulted from trying to produce version; four times the rupture was complete and once incomplete. Eclampsia was seen eleven times, 3 women died, a mortality of 27 per cent.; that of the children was 46 per cent. The fatal case of sublimate intoxication followed seven vaginal douches of a hot sublimate solution of 1 to 1000, which were given ante-partem to hasten labor. It was a case of artificial induction of labor.—(*Much. Med. Abhandl.*, iv 2, 1892).

A Rare Case of Injury During Labor.*

Dr. Opiering (*Centre. Bl. f. Gynæ*) reports the following case:

In the Schauta clinic of Prague, a primipara of 41 years, sustained during delivery a perforating wound between the rectum and the vagina, without injury to the perineum. The pelvis was normal, the vagina remarkably contracted. In spite of good labor pains, which had brought down a segment of the head, it failed to make any further progress. The head being in left position, a right episiotomie of about three centimetres was made. The next labor pain was followed by sudden bleeding from the rectum, and the right hand of the fœtus appeared in the anus as far as the elbow, without however, injurying the perineum. After reposition of the arm and birth of the child, the examination of the vagina showed a tear extending its entire length from the columna. The tear extended in its middle portion into the rectum about a hands breadth. Prompt healing followed the tamponing of the vagina.

*Translated for The Medical and Surgical Reporter by Marie B. Werner, M. D.

The Treatment of Fracture of the Patella.*

Paul Klemm has used the following treatment for the last five years, which he reports in the St. Petersburg *Med. Wochen.*

Soon after the admission of the patient, at and around the knee-joint, massage is used. He places great stress in massage being particularly directed to the central portion of the fracture in order to increase the lymphatic and venous circulation. After the massage the joint is wrapped in cotton and then a dressing of adhesive plaster, which exercises a certain amount of pressure upon the intra-articular extravasation at the same time keeping the fragments of bone coaptated. The extremity dressed in this manner was then placed in a fracture box and moderately elevated. After three or four days the bandage was removed and the leg again thoroughly massaged. From this time on it was massaged daily, and after two weeks passive motions were used, the patient encouraged to elevate the leg with the knee extended. Between the third and fourth week the patient was encouraged to walk around the room with the aid of a cane, and the beginning of the sixth week usually discharged. Bony union was never met with; there was always a tense, fibrous uniting band which, however, did not interfere with the action of the knee-joint. In all cases there was complete active ability to extend as well as flex up to 50 degrees.

The Treatment of Abortion.*

E. Eckstein, of Teplitz, gives a report of 66 cases of abortion in Martin's clinic, in Berlin, all of which resulted favorably. The author recommends the instrumental treatment as the only rational method, while the tamponade should be used only in such cases where there is insufficient dilatation of the cervical canal. In cases where there is sufficient dilatation, prompt removal of the uterine contents should be practiced. In cases of five months and upwards the patient should be treated the same as if she were at full term; should, however, fever be present, due to decayed material in the uterus, this should be promptly removed and the uterus curetted. Ergot is given only after the uterus is emptied.—(*Schmidt's Jahrb.* Bd. 237, No. 1)

*Translated for The Medical and Surgical Reporter by Marie B. Werner, M. D.

ABSTRACTS.

FIVE CASES OF LAPAROTOMY PERFORMED ON PATIENTS OVER SEVENTY YEARS OLD.

J. Rutherford Morison, M. D., says:—Long lists of successful ovariotomies can no longer serve any good purpose, for it has been proved that the mortality of ovariotomy should not exceed five per cent. Sir G. M. Humphry long since pointed out that in old people repair and recovery are likely enough to follow major operations. This is true of abdominal section—a fact not sufficiently recognized. The author's list includes all the patients over seventy years of age, on whom he had performed abdominal section, five in number. Four of them had ovariotomy successfully performed. Three of these are well and active at the present time. One died nearly two months after operation from the results of appendicitis. The fifth recovered from an exploratory abdominal section made to ascertain the nature of, and to treat if possible, an abdominal tumor of doubtful character and origin.

Case I., 1890. A widow aged seventy, with a cystic tumor in the abdomen, which was distended to about the size of a six months' pregnancy. Operation on Dec. 22, 1890. A broad ligament cyst was exposed, tapped, and enucleated after dividing the peritoneum covering it. The hemorrhage was arrested by tying each bleeding point as exposed. A large raw surface was left, over which the stripped peritoneum was laid. The operation occupied one hour. Drainage was employed for three days. The patient recovered so rapidly that she was allowed to get up on the tenth day, and went home well in a fortnight.

Case II., 1892. A widow aged seventy-four. A large, well-defined cystic tumor was discovered to be the cause of the prominence of the abdomen, which was larger than a full-time pregnancy. On August 6th, 1892, the author removed a large cystic ovarian tumor free from adhesions. The after progress was uneventful. On the ninth day the dressings were taken off for the first time and the sutures taken out. The wound had entirely healed by first intention. On the fifteenth day the patient went home well.

Case III. A widow aged seventy-two. On September 8, 1892, the author performed the following operation. A flaccid cyst of the right ovary containing about one gallon of very thick glairy fluid was removed. The left ovary, with a hard tumor about the size of a walnut growing from it, was also taken away, and the abdominal wound entirely closed. Subsequent progress was most satisfactory. The dressing was changed for the first time on the tenth day after the operation, when the stitches were taken out. The wound healed by first intention except at one place about half an inch long, where the skin had become inverted and granulations were visible. This healed a few days afterwards. On the tenth day the patient left her bed, and on the fifteenth she went home.

Case IV. A widow aged seventy-seven. She had never been robust, but usually healthy. The patient was a thin, dark woman, who looked ill, with high temperature, tender swollen abdomen and œdematous legs; the right leg was more swollen than the left. An operation was performed on Sept. 20 ,1892. On opening the abdomen in the right linea semilunaris, an ovarian tumor the size of a football was exposed and removed. No pus was found. The cæcum was adherent to the parietes, and a fluid collection could be felt behind and to its outer side extending back to the loin.

A second incision above the center of the crest of the ilium allowed the escape of fully six ounces of fetid pus. The anterior or ovariotomy wound was sutured and the lateral wound drained with a glass tube, each wound being separately attended to and dressed. The ovariotomy wound never gave any trouble and quickly healed. Until October 8th, the after progress was most satisfactory; the general condition improved, with return of appetite, sleep and freedom from pain. On this date the glass-tube could not be replaced by the nurse, Dr. Munro, or the

author, and for the first time since the operation her evening temperature was over 100°. October 9th: No discharge from sinus; evening temperature 103°. 12th: A gush of pus from sinus with lowered temperature. Recurrence of a similar sort took place till October 20th, when a fresh tender lump was noticed. 25th: Under chloroform I freely opened an abscess which extended from the iliac crest to the costal margin. The cavity appeared to be between the muscles of the abdominal wall and contained about four ounces of pus. Improvement followed and the patient was able to be out of bed. Soon, however, she relapsed, with some evening rise of temperature. November 5th, Dr. Munro suspecting a further collection of pus, he explored again under chloroform and found pus at the bottom of the first sinus in a large cavity. A counter-opening was made in the back; two full-sized india rubber drainage tubes were passed from the front openings through it, and the cavity was irrigated. The patient never fully rallied and died on November 9th, 1892.

The following is extracted from Dr. Munro's post mortem report. An abscess cavity extended from the anterior surface of the bladder, which was covered with pus, outside the peritoneum, along the iliac fossa, and upwards to the under surface of the liver. The three openings made at different times all led into one cavity. The second abscess cavity was between the *obliquus internus* and the *transversalis* muscles. No communication between the abscess sac and the peritoneum could be discovered, but from eight to ten ounces of pus were found in the pelvis, and the intestines were glued together with purulent lymph. The cæcum and a portion of the ascending colon and ileum, with some surrounding tissue, were sent to the author for dissection. The appendix vermiformis was glued to the posterior surface of the cæcum and the ascending colon. About half an inch from the cæcum it was perforated by a ragged ulcer. The perforation opened into the abscess cavity. The ulcer had nearly cut off the distal from the proximal end of the appendix. Both portions were pervious. No concretion was found.

Case V. A woman, aged 70. She complained of painful swelling in her bowels, and weakness. Three weeks before admission, a painful tender swelling was discovered by Mr. Martin on the right side. Some diarrhœa was the only other symptom. A mass on the right side softened, showing a tendency to point. On Sept. 1st, 1892, the author opened the abdomen in the middle line and introducing his hand, found the bulk of the tumor to be a retro-peritoneal malignant mass surrounding and involving the cæcum. The pointing swelling was now punctured with an hypodermic needle in the right iliac fossa, and pus was discovered. The median wound was closed and dressed, and a drainage-tube left in a separate opening for the abscess cavity. The patient was returned to bed apparently no worse for the operation. The median wound healed in three weeks without any trouble. During September and the first half of October she improved in condition, though profuse suppuration continued, and she was once out of bed. Then symptoms of increased cardiac failure showed themselves in breathlessness and œdema of the legs. On October 30th, 1892, she complained of pain in the left leg, which was noticed to be discolored at its most dependent parts by post-mortem-like lividity. On the day following, some of these reddened patches had turned black, and there was no sensation in the foot and leg, nor pulsation in the arteries. On Nov. 2nd, in the evening, she died somewhat suddenly. Before death total gangrene of the leg had occurred. Necropsy: There was contraction of the mitral orifice of an hypertrophied heart. No vegetations were detected on any of the valves. The left femoral artery was blocked for about six inches with an adherent blood-clot, white in the center and red at the ends. There was a large, malignant mass of glands behind the cæcum and surrounding it. The interior of the cæcum was extensively ulcerated, the ulcer having thick, hard walls. At the outer side and behind the cæcum and ascending colon, a large abscess cavity, extending from the pelvis to the under surface of the liver and diaphragm, was found. No secondary deposits were observed. Examined microscopically the growth proved to be a cylindroma.—*London Lancet*, Jan. 21st, 1893.

A dust of bicarbonate of soda will soothe a toothache.

TETANY AS A SEQUELA OF PUERPERAL ECLAMPSIA.

S. W. Wheaton reports a patient, a primipara, aged twenty who was seized with convulsions immediately after the expulsion of the placenta. In about four hours there had been thirteen attacks. The patient was comatose at that time and with dilated pupils. The conjunctival reflex absent, respiration rapid and irregular, and crepitations were heard at the bases of both lungs. Temperature 100°, pulse 150, feeble but incompressible. A few drachms of urine drawn off with catheter were found solid with albumen and contained blood, blood casts and ½ per cent. of urea. Wet cupping to both loins; one eighth of a grain of hydrochlorate of pilocarpin was injected subcutaneously; twenty grains of chloral and a drachm of bromide of potassium were given per rectum. In an half hour another convulsion of a typical epileptic character occurred, preceded by a sighing sound and a marked contraction of the uterus. The wet cupping and pilocarpin injection were repeated and were soon followed by a profuse diaphoresis. Only four attacks occurred, during the next thirteen hours. She was however still unconscious, but could swallow; conjunctival reflex had returned, and temperature rose to 103°. Liquor Ammoniæ Acetatis was given, two drachms every two hours, and also a purge and an enema. The secretion of urine increased, the albumen diminished and the urea increased. There were no signs of further lung mischief but a systolic murmur appeared at the apex of the heart, with no increase in its area of dullness. On the third day after confinement, while still unconscious she had spasmodic attacks of rigidity of the limbs; the ankle-joints extended and the toes adducted; the jaws rigid and pressure on the limbs caused increased rigidity.

This condition, which was thus typical of tetany lasted three days, after which it gradually disappeared, consciousness returning slowly; temperature became normal; the urine increased in quantity; there was complete loss of memory regarding events preceding the fits; secretion of milk was entirely absent but the involution of the uterus proceeded normally. Convalescence was complete in three weeks. Six months later the urine contained still a trace of albumen.

The author further states that tetany always occurs after some cause producing exhaustion or defective nutrition of the nervous system. Especially is this the case in the easily-exhausted nervous system of children, in whom tetany is so common as the so-called "carpo-pedal contractions." These contractions may follow convulsions, diarrhœa, teething or any exhausting cause. In adults tetany principally occurs in women, especially from the exhaustion of lactation or pregnancy under unhealthy surroundings, as also in connection with hysteria as in a case reported by Dr. Caiger, (*The Lancet*, Aug. 20, 1887). Tetany may be regarded as the result of profound exhaustion or mal-nutrition of the higher motor centers of the cerebral cortex, in consequence of which the restraining influence is withdrawn from a lower stratum of cells, which are thus allowed to come into action without any regulation from higher centers. The normal action of this lower stratum of cells is to initiate movements corresponding to the typical attitudes of this disease, consequently when the higher control is withdrawn their uncontrolled action produces permanent contractures. In the case in point, the exhaustion of the higher centers was due to the repeated convulsions, and its intensity was marked by the long period of unconsciousness and absence of voluntary movement; also by the persistent high temperature, which latter is also probably due to the unregulated action of lower heat-producing centers, owing to the exhaustion of higher controlling ones. That no organic lesions exist in tetany is proved by the fact that it may recur in the same subject again and again at intervals. The cardiac murmurs were undoubtedly due to anæmia, although at the time they gave rise to a suspicion of ulcerative endocarditis. This is frequently seen as a result of septicæmia after delivery, to which cases of eclampsia are particularly exposed owing to the failure of antisepsis in patients with convulsions and suffering from involuntary evacuations. Another point of interest is the increase in the amount of urine and urea which followed measures for the relief of kidney congestion. No treatment was ordered

for the tetany except quinine and iron; it is essentially a symptom of deficient action of the nervous centres and requires a tonic treatment. Dr. Dakin has collected eight cases of tetany during pregnancy (*Obstetrical Society's Transactions*, vol. xxxii., p. 163); they all occurred before delivery—not after, as in the present case—and one ended fatally.—*London Lancet*, Jan. 28, 1893.

SELECTED FORMULÆ.

Worm Powders.

C. W. Moister.

℞
Santonin ..... 10 grains.
Calomel ..... 15 "
Scammony, resin, powdered 15 "
Powdered sugar ..... 30 "

Mix, and divide into 15 powders. Give one three times daily (on an empty stomach) for one day and repeat in three days if necessary.

C. W. Moister.

℞
Santonin ..... 10 grains
Podophyllin resin ..... 4 "
Powdered rhubarb ..... 15 "
Sugar of milk ..... 30 "

Mix, and divide into fifteen powders. Give powders 5 hours apart (on an empty stomach) until three have been given.

Omit a day, repeating the dose if necessary.

—*Ex.*

Typhoid Fever in Children.

Dr. Earl (Arch. of Pedriat.) gives the following as nutritious, aiding digestion, and a mild intestinal antiseptic:

℞
Pepsin cordial ..... ʒ i.
Syr. hypophos. comp. ..... ʒ iv.
Acid. sulphur. arom ..... ʒ i.
Aquæ menth. piper., q. s. ad ..... ʒ ii.

M. d. Sig.—One teaspoonful, well diluted, four times daily.

—*Ex.*

Santonin Lozenges.

℞
Santonin ..... 5 gr.
Pulverized sugar ..... 3 dr.
Pulverized acacia ..... 8 dr.
Mix well and add:
Mucilage of acacia ..... 16 drops.
Water, a sufficient quantity.
Make into 10 lozenges.

—*Phar. Era.*

Diphtheria.—(Local Treatment.)

—PAINT.—

℞
Citric acid (cryst.) ..... 3-4 "
Carbolic acid (cryst.) ..... 3-4 parts.
Iodine tincture ..... 5 "
Cognac ..... 100 "

Apply every two hours by means of a cotton tampon.

—*Ex.*

In Syphilitic, Oral, Lingual and Pharyngeal lesions.

(Dr. G. Frank Lydston)

℞
Carbolic acid ..... gr. 10
Iodide ..... " 5
Menthol ..... " 10
Oil of eucalyptus ..... dr. 2
Glycerole of tannin ..... " 2
Boroglyceride, enough to make. oz. 1

Label: Apply with a brush.

—*Western Druggist.*

Thymol and Salicylic Acid Against Fœtid Breath.

—MOUTH-WASH.—

℞
Thymol ..... 1 part.
Borax ..... 2 parts.
Alcohol ..... 4 "
Distilled ..... 2000 "

Externally!—Use several times daily.

or:

℞
Salicylic acid ..... } of each, 1 part.
Saccharin ..... }
Sodium bi-Carbonate ..... }
Alcohol ..... 30 parts.

Mouth-wash!—Teaspoonful to a glassful of water, several times daily.

—*Journ. de Med. de Paris.*

For Toothache

Take of:—

℞
Menthol ..... 36 grains.
Chloroform ..... 1 drachm.

Mix, and after the cavity of the tooth is cleansed apply a few drops on a piece of cotton wool.

—*Ex.*

Fissure of the Nipples.

℞
Salol ..... dr. 1
Cocaine hydrochlorate ..... gr. 2
Ether ..... fl. dr. 2
Collodium ..... fl. dr. 4

—*Am. Pract.*

Worm Syrup.

Ch. and Dr.

℞
Fluid extract of spigelia ..... 5 ozs.
Fluid extract of senna ..... 3 ozs.
Oil anise ..... 10 minims.
Oil caraway ..... 10 "
Syrup ..... 8 ozs.
Mix.

Dose—One or more teaspoonfuls at intervals until purging commences.

—*Ex.*

Ringworm.

℞
Oleate of Copper ..... ½ drachm.
Benzoated Lard ..... 1 ounce.

Mix; the ointment to be applied night and morning.

—*Pop. Med. Month.*

Prophylactic for Tonsillitis.

The following is recommended for use by those persons predisposed to the development of tonsillitis (*Clin. Jour.*):

℞
Olei. menth. pip ..... mviij.
Acid. carbolic (crystal) ..... ʒj.
Spt. vini. Rectificat ..... ʒij.

M.

Sig. Ten drops to be added to a cup of warm water, and this solution to be used as a gargle night and morning.

—*Ex.*

Nervous Debility.

℞

Acid phos. dilut.,	ʒ 4.
Calisayæ elix.,	ʒ 2.
Elix. valerian ammon.,	ʒ 1.
Glycerine,	ʒ 2.
Vini xerici, q. s.,	ʒ 8.

M. Sig.—Tablespoonful in water three times a day.

—*Ex.*

Dusting Powder for Children.

℞

	Parts.
Burnt alum	15
Boracic acid	15
Precipitated calcium carbonate	150
Starch	250
Carbolic acid	3
Oil of lemon, a sufficient quantity.	

—*Ex.*

A simple yet efficient prescription for allaying the craving for drink in dipsomaniacs is as follows:

℞

Tr. capsici	m x.
Tr. nucis vom	m x.
Ac. nitric dil	m xx.
Aquæ	ʒ ii.

M. Sig. This quantity to be taken three times a day.

—*Cincinnati Lancet.*

Anal Fissure.

Allingham strongly advocates the use of the following ointment:

℞

Hydarg. subchlor	gr. iv.
Pulv. opii	
Ext. belladonna	aa gr. ij.
Ung. sambuc	ʒj.

M. Sig.: To be applied frequently.

—*Ex.*

Syphilitic Ulcers.

Dr. Mauric prescribes an ointment composed of:

℞

Hydrarg. chlor. mitis } Zinci oxidi }	aa grs. xv.
Petrolati	ʒvj.
Pulv. amyli	grs. xlv.

M. ft. ungt

—*Ex.*

Iodated Water in La Grippe.

Dr. G. J. Muller (*Wiener Med. Presse,*) has administered iodine with good results in the grippe. The action of the remedy is noticeable, at the latest, twenty-four hours after its administration. It acts best in painful cases, with colic, etc. Aqua iodata is a solution of iodine in 5000 parts of water. The solution should be freshly prepared every time it is taken. One may prescribe:

℞

Tinct. iodine	2 gms. (gtts. xxx)
Alcohol	40 gms. (ʒjss.)

Five drops twice a day in half a glass of water. Sugar may be added to the water; every other addition is to be forbidden.

Substitute for Mother's Milk.

The following is claimed to be almost exactly identical with normal woman's milk in composition:

℞

Cow's milk	1 pint.
Water	¾ "
Cream	5 tablespoonfuls
Milk Sugar	3 "

—*Exchange.*

Expectorant.

The best remedy to loosen expectoration is muriate of ammonia, combined with some such remedy as syrup of squills. If dry plastic pleurisy be present, iodide of ammonium should be added as follows:

℞

Ammonii muriat	ʒ iiss.
Syr. scillæ	ʒ ij.
Ammonii iodidi	ʒ iss.
Glycerini	ʒ ss.
Syr. prun. virg., q. s	ad ʒ iv

M. Sig.—ʒ j every three hours in water.

At the same time in a case of pleurisy, to prevent any possible tubercular tendency, give something to build up tissue and aid general strength; something to strengthen the chest. The best thing for this purpose is the syrup of the hypophosphites, ʒ j three times a day after meals.

—*Exchange.*

Liniment of Subacetate of Lead.

This sedative and cooling application to burns is a mixture of 40 parts of solution subacetate lead and 60 parts cotton seed oil.

For Painful Hæmorrhoids.

(Lancet-Clinic.)

℞

Ext. of krameria	dr. 2
Cocaine hydrochlorate	gr. 8
Oil of eucalyptus	m. 12
Cacao butter	enough.

Make into twelve suppositories.

Boschee's German Syrup is said to have the following formula:

℞

Oil of tar	1 part.
Extract of ipecac, fld.	4 parts.
Extract of wild cherry, fld	6 parts.
Tincture of opium	4 parts.
Magnesium carbonate	3 parts.
White sugar	80 parts.
Distilled water	48 parts.

Triturate the magnesia and the oil of tar together, mix the fluid extracts and the water, and triturate the whole with the oil of tar and magnesia. Filter, add the sugar and dissolve in the cold by agitation.

—*Nat. Druggist.*

Scrotal Eczema.

℞

Hydrarg. chlor. mit	ʒi.
Zinci oxidi,	grs. 40.
Bismuthi subnit	ʒ 1½.
Lanolin	ʒ 1.
Vaseline	ʒ ½.

M. Ft. ungt.

Sig.—Wash the scrotum in hot borax water, and apply the ointment night and morning.

—*Ex.*

Wash for Pruritus.

℞

	Grammes.
Menthol	4
Alcohol	30
Water	60
Diluted acetic acid	120

Wash with this instead of with plain water.

Applications for Burns.

A German hospital surgeon recommends (*Munch. Med. Woch.*) the following:

℞

Linseed oil	ʒiv.
Lime-water	ʒiv.
Thymol	gr. vj.

Dissolve the thymol in the oil before adding the lime-water.

CURRENT LITERATURE REVIEWED.

THE AMERICAN GYNECOLOGICAL JOURNAL for December contains an article by Dr. Charles P. Noble on

Early Diagnosis and Operation in Cancer of the Uterus.

The author urges the importance of early diagnosis, while the disease is limited to the cervix or the body of the uterus and before the tissues surrounding the uterus have become involved. After involvement of the parametrium a cure becomes impossible. The classical symptoms of hemorrhage, discharge and pain are discussed, and hemorrhage following sexual intercourse is pointed out as a sign of great value in the early diagnosis. "Whenever this occurs, the case should be thoroughly investigated." The old teaching that women approaching the menopause are subject to flooding is, in the author's opinion, most dangerous and the cause of so many cancers reaching the stage of ulceration before discovery. "Especially when women have ceased to menstruate and again have a metrostaxis, should the case be carefully studied." An offensive discharge is present in the ulcerative stage of all cancers, while cauliflower growths give rise to a watery discharge at a much earlier period. Pain is present late in the disease and is due to the involvement of neighboring tissues, peritonitis, etc. The diagnosis of cancer is made from the physical signs aided, if necessary in doubtful cases, by microscopical examination of a portion of the suspected tissue. Papillary and cauliflower growths are easily recognized by the excrescences on the cervix. In its early stage, epithelioma of the cervix may be confounded with the results of inflammation, but "when a definite area in the cervix is hard, infiltrated, and constitutes a distinct mass or tumor in the cervix, it is probably cancer and should be examined microscopically." After ulceration has taken place the diagnosis is easy, and the only conditions liable to be mistaken for it, chancre or gummata, are rare. The author reviews the treatment by curetting, caustics, amputation of the cervix and total extirpation; and decides in favor of total extirpation, as, up to the present, that has given the best results. tatistics are given proving this.

[It is of interest in this connection to note that one operator* recently stated that he had removed cancerous uteri in several instances from virgins, thereby refuting the teaching that the disease is the result of injuries received in childbearing.—Ed.]

Dr. Charles N. Smith reports a case of

Appendicitis

in a child six and a half years old, who, after eating a pint and a half of peanuts within twenty-four hours, presented the classical symptoms of appendicitis—constipation with vomiting, distention and tenderness of the abdomen, especially over McBurney's point. Castor oil was given, causing free evacuations of the bowels consisting mainly of masses of undigested peanuts. The patient improved for a time but, three months later, her condition became such that removal of the appendix was imperative. At the operation the pelvic viscera were found glued together by recent, soft adhesions and a small quantity of flaky pus appeared as soon as the peritoneal cavity was opened. The peritoneal coat of the cæcum had sloughed off over an area $1\frac{1}{2}$ inches long by $\frac{1}{4}$ to $\frac{3}{4}$ of an inch wide. The appendix was found adherent to the cæcum and inclosed in a small cavity formed by adhesions and filled with pus, perforated at its tip and containing a hard, foreign body and a small quantity of liquid fæces. Its peritoneal coat was necrotic. The appendix was ligated and removed, all adhesions broken up, the abdominal cavity flushed, a glass drainage tube passed into the pelvis and iodoform gauze packed against the necrotic intestines and mesentery. The patient did well till the fifth day when a bronchitis developed which extended to the smallest bronchial tubes and the patient died of capillary bronchitis on the sixteenth day. At the autopsy, the abdominal wound was found entirely healed. In the author's opinion, death was caused by the capillary bronchitis and was in no way due to the operation.

Dr. T. J. Crofford, in a paper on "Laparotomy as a Diagnostic and Prognostic Measure," shows the difficulty of always making an exact diagnosis in pelvic troubles, fortifying his position by the report of several cases. These cases illustrate the impossibility of appreciating dangers which may exist in the cases one often meets, by any means short of abdominal section. "Abdominal section *per se*," he says, "under modern methods, is attended with the minimum amount of danger. It is the intra-abdominal condition demanding the section which gives rise to the mortality."

A similar paper is that by Dr. A. V. L. Brokaw on

Experiences in Pelvic Surgery.

He confesses that, with increasing experience in pelvic disease, he finds himself well satisfied with an approximate diagnosis. The diagnosis of pus cases is usually clear, though he has operated for pus and found an extra-uterine pregnancy and *vice versa*. Only those, he says, without operative experience, or the theorists, always made correct analysis of their cases. Much of his work comes from the hands of the routine gynecologist "who treats all of his cases alike—introduces a speculum, paints the cervix with iodine, makes application to the cervical canal or within the uterus itself, insufflates some boracic acid, introduces a glycerine tampon and requests the patient to come again in two days." Much of his work comes to him after the methods of "gynecological tinkering" have been exhausted. In one condition

*Dr. Joseph Price.

above all others exploratory incision should be adopted, namely: suspected extra-uterine pregnancy. It will not do to wait for the positive classical symptoms. They may come and come too late to save the patient. He advocates rapid operating in the dorsal position; a short incision; the drainage tube in nearly every case and the free use of hot water douching of the abdominal cavity. The paper includes the report of a case illustrating his views.

Dr. John Milton Duff contributes a paper on "Post-partum Hemorrhage." This he considers avoidable if proper precautions are taken, and the obstetrician should always be prepared to meet the emergency. The routine administration of ergot at the close of the third stage, he considers pernicious. It should be given only on a clear indication. Vinegar will not always control hemorrhage and he has seen cases in which it was useless. Should the hemorrhage occur from a torn cervix or vagina, the rent should be sutured or, if that is impossible, the cervix and vagina tamponed. He recommends tamponing the uterus with iodoform gauze in bleeding from the placental site. In such an accident, tamponing the vagina is worse than useless.

Dr. Lucy J. Utter reports several interesting "Cases seen in Practice," especially one where an unmarried woman was delivered of twins, one of whom had a very dark complexion and curly black hair, while the other was of light complexion with red hair. The woman confessed to having had intercourse with two men within twenty-four hours, one a very dark man and the other a very light one.

THE KANSAS CITY MEDICAL INDEX FOR FEBRUARY.

Dr. John Ridlon, of Chicago, and Robert Jones, F. R. C. S., of Liverpool, Eng., discuss "Operative Measures in the Treatment of Spondylitis" and describe the various operations for the relief of abscess due to spinal caries. The authors prefer the injection into the abscess cavity, after evacuation, of an emulsion of iodoform to the solution of iodoform in ether formally advocated. An expectant rather than an operative treatment of abscess in Pott's disease is advocated. The article is illustrated by wood cuts explanatory of the paper.

Dr. Emory Lanphear, in an article on "Cancer of the Stomach," urges the importance of early diagnosis and operative interference, presenting statistics on the subject.

Dr. A. H. Colvard contributes a paper on

Diphtheria,

reporting a number of cases to prove that this disease, whice he holds to be primarily local, can be arrested in its earlier stages. He urges that every case of tonsillitis or sore throat occurring during an epidemic of diphtheria, should be treated as diphtheritic. He recommends the use of a mixture of tr. ferri chloridi, potassium chlorate, and hydrochloric acid, reasoning that the chemical reaction will produce free chlorine in its nascent state. The mixture is given every two hours combined with the use of a gargle of mercuric chloride dissolved in hydrogen peroxide.

Dr. B. F. Fortner discusses "Pyosalpinx" and shows that other causes besides gonorrhœa can be responsible for the disease. Often it is due to a post-partum septicæmia. "Laparotomy as early as the diagnosis can be made is the only rational treatment." Electricity ought not to be expected to dispel a quantity of securely pent up pus. Catheterization of the Fallopian tubes he regards as useless and obsolete.

Dr. Fred Byron Robinson describes "Dr. Franklin H. Martin's New Operation of tying the Uterine Arteries for Bleeding Fibroids." An incision is made in the vagina on each side of the cervix and the uterine artery tied by a ligature passed through the broad ligament on each side, by means of a strong curved needle. The incisions are then closed. The advantages and objections to the operation are stated.

Other papers in this issue are: "Protracted Parturition" by Dr. William B. Dewees; "A Case of Malignant Peritoneal Cyst" by Dr. J. M. Baldy, which was originally reported to the Obstetrical Society of Philadelphia and published in the abstract of the society's proceedings in THE MEDICAL AND SURGICAL REPORTER for Oct. 29, 1892, page 692; and a lecture by Reginald Harrison, F. R. C. S., London, Eng., on "Prostatic Obstruction" which is taken from Wood's Monographs.

THE MONTREAL MEDICAL JOURNAL

for February contains a paper by Dr. H. H. Chown on

Enterectomy for the Cure of Fæcal Fistula.

The history of the case of fæcal fistula reported is unique. The patient, a poor widow, living twelve miles from a doctor, had for years a lump in the left groin that appeared and disappeared and gave her no discomfort. She had never shown it to a doctor, but the reporter has little doubt that it was a small inguinal hernia. A fall converted the hitherto reducible hernia into an irreducible one. There were no symptoms of obstruction but, on account of the pain and the presence of the tumor, she decided to deal with it surgically on her own account. She therefore made an incision with a razor into the tumor, and succeeded admirably in performing a left inguinal enterotomy. Two months later she was admitted to the Winnipeg General Hospital, where the author operated on her for the closure of the artificial anus following the plan of Dr. Abbe, of New York. The bowel was divided and each cut end inverted and closed with a fine silk suture. The ends of the bowel were then drawn past each other for the space of six inches and united near the mesenteric line. An incision was then made in each portion of the bowel in such a position as to form a continuous passage for fæcal matter. The two ends of the bowel were then further united by continuing the

mesenteric stitches around the incision in the bowel until they reached their point of origin. The woman recovered perfectly. The author regards the use of decalcified bone plates, catgut rings, etc., as unnecessary.

Dr. R. E. McKechnie reports "An Anomalous Rash in Scarlatina," in which the eruption was papular instead of the ordinary form. The cases were undoubtedly scarlatina, as all the other well known symptoms were present.

Dr. F. H. Menburn reports a case of "Tubal Pregnancy," in which the rupture took place between the second and third month. The patient at first refused operative interference, but later consented. The operation was undertaken too late and the patient died twelve hours after the laparotomy.

Dr. J. G. Adami contributes an article on "Modern Pathology," being an address delivered at McGill University. The subject of modern bacteriology is entered into fully, and the results shown of experimentation on the lower animals as to the production of disease.

Dr. T. J. Harrison in his "Address on Obstetrics," delivered before the Canadian Medical Association, considers the use of the forceps in labor; and Cæsarean section vs. craniotomy. He advocates the early use of the forceps and craniotomy, rather than the Cæsarean operation.

EDINBURG MEDICAL JOURNAL.

The February issue contains a carefully prepared paper by Dr. Halliday Croom on "Premature Sexual Development in Relation Specially to Ovarian Tumors, with an Illustrative Case of Ovarian Sarcoma in a Child of Seven; Laparotomy; Recovery."

Precocious menstruation with associated premature sexual development, although by no means unique in its occurrence—as the medical literature of this country and of Europe attests—is yet of sufficient rarity to invest it with at least a transient interest to the observer when such an anomaly does present itself. After a careful perusal of the available literature the writer tabulates the cases found under the following heads:

1. Precocious menstruation with an early appearance of the external manifestations of puberty.
2. Sexual development with menstruation.
3. Menstruation previous to development of the sexual organs.
4. Early conception and pregnancy.
5. Premature sexual development associated with tumors of the generative organs.

Dr. John Wyllie in a continued paper entitled "The Disorders of Speech," under the heading "Speech in its Relations to Diseases of the Nervous System," considers:

1. Speech in its relations to insanity.
2. Illustrations of the manner in which language mirrors the condition of the mind.
3. The action of the speech centres in insanity.

Dr. David Wallace in his paper "Tumors of the Bladder" offers the following conclusions:

1. Tumors in the bladder are now known to be of more frequent occurrence than was formerly supposed.
2. The history of hæmaturia and its character may be strongly indicative of the presence of a tumor.
3. Positive evidence of the presence of tumor by the detection of portions of the tumor or characteristic cells is seldom obtained from the urine.
4. Cystoscopic examination, although not always possible, in the majority of instances enables one to detect the tumor when present.
5. With the cystoscope one is enabled to tell the site, size and superficial attachment of the tumor and approximately its character.
6. No evil results attend the use of the cystoscope.
7. Tumors in many cases can be thoroughly removed from the bladder.
8. Suprapubic cystotomy gives the best access to the bladder.
9. The proportion of malignant tumors as compared with benign is very high.
10. Sufficiently good results follow the removal of malignant tumors to justify operation.

THE PACIFIC MEDICAL JOURNAL

for February contains three papers: "A Case of Trephining in Epilepsy" which occurred in the practice of Dr. C. N. Ellinwood and is reported by Dr. Frank Fischer. The patient had received a hard blow on the head when a boy, which was followed by epileptic seizures, particularly marked on the right side. A button of bone was removed from the left side of the skull corresponding to the region of the hand centre. No disease of the brain substance was found though the bone was slightly thickened at this point. The patient recovered from the operation and during the six months which have elapsed has improved, though the attacks continue, but at longer intervals than formerly.

Dr. C. G. Kenyon discusses the operative treatment of "Empyema" by exsection of the sixth or seventh rib, or both, and thorough drainage of the pus cavity. The object of the exsection is to allow the chest wall to collapse and thus bring the sides of the abscess cavity into apposition.

The remaining paper is "Recent Discussions respecting Bacteria" by Dr. J. H. Wythe, in which the recent utterances of authors on the bacterial causation of disease are given in abstract.

THE WOMAN'S MEDICAL JOURNAL

for January contains an article by Dr. Mary Putnam-Jacobi on

Permanent Drainage in the Treatment of Endometritis.

in which she advises the introduction into the uterine cavity, under antiseptic precautions, of an aluminium drainage tube for the relief of this affection. Antiseptic douching

and intra-uterine packing around the drainage tube were also included in the treatment of the two cases reported.

The other paper in this month's issue is by Dr. Elizabeth Woods on Chronic Metritis and Endometritis. The various methods of treatment advocated by different authors are summarized. As the writer of the paper confesses, she has no new facts to communicate.

[The journal makes its appearance for the first time. this being the initial number. It is edited and published by women and therefore should appeal strongly to them for support.—Ed.]

PERISCOPE.

THERAPEUTICS.

Quinine Tannate.

"Of the various compounds of salts of quinine met with none have perhaps received less recognition than the tannate, says Dr. A. C. Zeig. Whether it be due to a misconception of its therapeutic value, the writer is unable to state.

On examining various samples of this compound they were found to vary both in their physical properties and in the per cent. of quinine alkaloid in combination, the latter varying from 10 to 25 per cent. Natural quinine tannate is an amorphous grayish powder, odorless and tasteless, soluble to a small degree in cold water, soluble in alcohol, and but slightly soluble in ether. Owing to the objection raised against the more common and soluble of quinine salts this most peculiar compound often meets with favor when it is the intention of the prescriber to employ an article that will not offend a sensitive palate.

It has been questioned by some writers on this same subject as to whether tannic acid, by reason of its chemical structure and by the nature of its behavior toward reagents, is capable of forming a true compound with quinine similar to those of inorganic and organic acids containing displaceable acid hydrogen. Tannin, as we are well aware, is the anhydate of gallic acid, and, like many anhydric oxides of its kind, is incapable of becoming hydrated by mere contact with water. It needs the intervention of other agents, as bases, acids or ferments, reinforced or aided by influence of heat.

For preparing the compound from the more common form of quinine, namely, the sulphate, the following formula may be recommended:

℞

Quinine sulphate	40 parts
Sulphuric acid dilute	40 parts
Tannic acid	90 parts
Sodium bicarbonate	10 parts
Sodium acetate	10 parts
Distilled water	q. s.

Dissolve quinine sulphate is 2000 parts of distilled water, with aid of the dilute sulphuric acid. Dissolve sodium bicarbonate of and sodium acetate in another 2000 parts of distilled water. When dissolved add to it the tannic acid, and triturate until complete solution is effected. Add the quinine sulphate solution to tannic acid solution, stirring the mixture while it is being added. Set aside for six hours, stirring it at intervals, after which the precipitated tannate may be transferred to a wetted filter and washed. After draining it should be dried between bibulous paper at a temperature not exceeding 140° F. The resulting tannate of about 50 to 55 parts represents between 25 and 30 per cent. of anhydrous quinine alkaloid, equivalent to about 35 to 36 per cent. of the sulphate. Owing to incomplete combination taking place while the solutions are being mixed, it is quite important to let the mixture stand some hours before filtering. The bicarbonate and acetate of soda which, although they do not enter the product, facilitate the combination as well as filtration to a large degree, and may therefore be regarded as a valuable adjunct to the process. It should be borne in mind, however, that on too long digestion or contact with water, partial or complete conversion of the tannate into the soluble gallate may result, in which instance the compound has a decided bitter taste, and, furthermore, that when the compound be left in contact with saliva upon the tongue for some time a slight bitterness is perceptible, caused by the action of the alkaline saliva upon the same, while the bitter sensation of taste is altogether dependent upon the degree of alkalinity of the latter, thus varying in different individuals.

The compound is especially adapted for administration to infants and invalids, particularly those of the gentler sex who are afflicted with delicate digestive organs. The most agreeable method of administering this remedy is in the form of compressed tablets in which sugar and chocolate are made to act as adjuvants and render this pharmaceutical very acceptable, so that in place of displeasure or indifference we find these tablets really enjoyable. As offered by most manufacturers each tablet is made to contain one grain of quinine tannate, holding in combination 25 per cent. of quinine alkaloid.—*Phar. Record.*

Poisoned by Strychnine.

Twenty grains of strychine sulphate was swallowed by mistake by an Englishman, who was saved by the treatment inaugurated ten minutes after the accident. The poison had been taken on a full stomach. Emesis was induced by hypodermic injections of apomorphine and mustard and salt by mouth, which was followed by the stomach pump. The antidotal treatment consisted in the administration of tannin, chloral and bromides.

Piperazin.

Drs. Biesenthal and Schmidt review (from the *Berliner Klinische Wochenschrift* in *Therapeutic Gazette*) the clinical reports on piperazin which have appeared recently. The reports of Vogt, Ebstein, Heubach, Krakauer and Brik, all based on the use of Schering's Piperazin, are all very favorable. Testimony seems to be nearly unanimous that the remedy is harmless, and that it is effective as a solvent of uric acid. Biesenthal and Schmidt report seven cases in which the remedy has been tried. Four of the cases are given in detail. In three of the latter, who were gouty patients, and had attacks of gout, marked relief was obtained. The fourth patient had violent attacks of renal colic. On the first day the piperazin was used an extraordinary quantity of gravel was passed. After the second dose, on the next day, large quantities of gravel were passed several times, and almost immediate relief was experienced. Similar results were obtained in other cases. Biesenthal and Schmidt recommend the remedy very highly. Internally, they say, piperazin is best given in dilute solution in doses of fifteen grains distributed during the day. Its taste is very slight. As it is not irritating to mucous membranes, a one or two per cent. solution may be employed in washing out the bladder in the case of vesical calculi. Hypodermic injections into gouty deposits and local applications to gouty swellings may also be employed.

MEDICINE

Chronic Pulmonary Phthisis in Later Adult Life.

Dr. H. W. G. Mackenzie says :

The disease, while relatively less frequent than in early adult life, is still not uncommonly met with.

It more commonly attacks males than females.

The influence of heredity although less marked, can still be traced in some of the cases.

The disease is essentially chronic in form.

It is in a considerable number of cases limited to one lung.

Tubercular disease of the larynx and intestines is found in as great a proportion of the fatal cases as in earlier life.

The onset is usually insidious.

Cough, with emaciation and debility, should always suggest the possibility of phthisis in an elderly person.

Hæmoptysis is less frequent except in the later stages, when there is considerable risk of profuse and possibly fatal hemorrhage.

The symptoms of disease are sometimes quite misleading, being abdominal in type, suggestive of malignant disease, and generally arising from intestinal or peritoneal tubercle.

Sometimes the physical signs are best marked at the apex posteriorly.

Sometimes the disease is complicated with chronic bronchitis and emphysema, which mask the physical signs, and then is easily overlooked unless the sputum be examined for bacilli.

The duration of the disease is essentially protracted, but difficult to determine clinically on account of the gradual onset of the illness.

The maintenance of strength and nutrition, and the quietness of the pulse, are most encouraging as regards prognosis, while the opposite and the occurrence of complications are of grave omen.—*Med. Press and Circular.*

Diet in Obesity.

Dr. Towers Smith gives the following rules :

FIRST PERIOD, FOURTEEN DAYS.

Breakfast : Tea or coffee, with saccharin, if desired, in lieu of sugar ; bread or biscuits made from soya bean, two ounces ; grilled white fish or red meat, kidneys.

Lunch : Cut from joint of beef or mutton, taking no fat, and one helping of green vegetables, avoiding only peas, beans, and all roots ; soya bread or biscuit, one ounce.

Dinner : Clear soup, white fish, red meat, green vegetables as lunch ; soya bread or biscuit, one ounce.

DRINK.

First thing on waking : Tumbler of hot water with slice of lemon.

11 A. M. : Cup of bovril or clear soup.

Lunch : Two glasses of claret or one ounce of whiskey with potash water.

5 P. M. : Cup of bovril or clear soup.

Dinner : Two glasses of still hock or claret, or whiskey or potash.

Bedtime : Cup of bovril or clear soup.

Mustard, pepper, salt, Harvey's sauce, may be taken.

SECOND PERIOD, TWENTY-ONE DAYS.

Addition to No. 1 : Oysters, tongue, stewed fruit, with saccharin ; poultry, game.

THIRD PERIOD, THIRTY-ONE DAYS.

Additions to No. 2 : Toast instead of soya bread, for each meal, two ounces, savery jellies, aspic of prawns, plovers' eggs, jelly.

Dessert : A small quantity of fruit ; blue-mould Dorset cheese.—*Med. Times.*

Croup Treatment.

The employment of turpentine oil having given good results in diphtheritic laryngitis, Dr. Bonain (*Rev. de Lar., d'Otol., et de Rhin.*) was induced to try hypodermic injections of this medicament in two cases of well-pronounced croup, and both cases ended in recovery. He prescribes the following mixture :—

Lactic Acid	3 parts.
Syrup Tolu	50 "
Water	100 "

Half a tablespoonful every hour.

Besides, inhalations — two-hourly — of a teaspoonful of the following mixture were resorted to :—

Carbolic Acid.....1 part.
Alcohol.....} of each 10 parts.
Chloroform.....}

Finally, injections—morning and evening—into one of the supra-spinous fossæ of a syringeful (16 minims) of the following solution, were made :—

Tupertine Oil.....1 part.
Vaselin Oil.....5 parts.

By means of the above treatment, the cure is said to have been obtained, in the one case in seven in the other in four days.—*Merck's Bull.*

SURGERY.

Symphysectomy in Man.

M. Albarran presented a man of thirty on whom he practised first symphysectomy and then removed a large portion of the posterior surface of the bladder. This man was operated on two years ago for a neoplasm of the bladder, removed by the hypogastric incision. A year subsequently the hæmaturia reappeared, and a cystoscopic examination revealed a sessile epithelioma situated near the neck of the bladder. The operation in question was performed in September last. A longitudinal incision was made about three inches above the pubis, and carried down to within half an inch of the root of the penis, where it was terminated by small lateral incisions representing the branches of an inverted Y; the penis being freed from its attachments, an *ecarteur* was placed between the pubis and the bladder. The symphysis was then cut through and the two branches separated an inch and a half; a large section of the lower portion of the bladder was then effected without much difficulty, and the divided surfaces united by a double row of sutures; a catheter *a demeure* was placed. The patient remained seventeen days in an apparatus, and in a short time afterwards he was able to get up. At present he is able to work as usual, and has got very stout.—*Med. Press and Circular.*

A Method of Passing a Sound Through an Apparently Impassable Stricture.

In strictures apparently impassable for a sound of bougie even of the finest calibre, it is recommended (*La Semaine Medicle*, No. 1, 1893) to inject equal parts of a four per cent. solution of cocaine and one of sublimate, 1 per cent., into the urethra, compressing the penis somewhat in advance of the stricture with the thumb and forefinger of the right hand. Then the sound or bougie is introduced, the compression preventing the escape of the fluid. It is said to be astonishing with what ease the instrument will sometimes penetrate. This is probably due to the funnel-shaped distension of the urethra in front of the stricture. Possibly the cocaine contributes to the result, by reducing, to an extent, the congestion of the mucous membrane.

Death Under Chloroform.

Mr. F. Mortimer Rowland, M. B., Resident Medical Officer at the City Infirmary, Birmingham, has forwarded us the following report of a case of death under chloroform in that institution: M. S., aged 57, was admitted on November 9th, under Dr. Carter, suffering from ascites, which was thought to be complicated by a tumor (? cystic) in the right pelvic region, for which it was decided to operate. For this purpose, she was transferred to Mr. Jordon Lloyd; and on November 12th, the heart having been found to be apparently healthy, chloroform was administered on a piece of folded lint. Chloroform was given in preference to ether because of an asserted liability to pulmonary trouble. The patient took the anæsthetic perfectly well, and was in no way excited, respiration continuing evenly and deeply, and at normal rapidity up to the time when the skin incision had been made, when quite suddenly, and without warning, she became livid, made a few shallow gasps, and breathing ceased. The heart was examined instantly, and no sounds could be detected. The pupils were not dilated, being about a line in diameter. The tongue was well forward between the teeth during the administration. The head was lowered over the end of the table, and artificial respiration, both by Sylvester's and Howard's methods commenced, but no air could be made either to enter or leave the chest. Insufflation of the lungs was tried without effect, tracheotomy was then performed and insufflation again attempted, though again without effect. Heart puncture made within a few minutes of the onset of alarming symptoms showed the cardiac muscle to be absolutely inactive. Chloroform from the same bottle had been administered the day previously, and was given to another case immediately afterwards without any disturbing effect. The amount administered in this case was not measured accurately, but could not have exceeded half an ounce, and the patient was completely, but not deeply, under when alarming symptoms arose. It is thought respiration and circulation ceased simultaneously, but that the symptoms were due to respiratory cessation, aided by the upward displacement of the diaphragm from the abdominal fluid. At the *post-mortem* examination the cardiac condition was not such as could be recognized by auscultation, there being no valvular lesions, nor was the condition of the muscles such as could have affected the duration and tone of the first sound. Dr. Rowland calls particular attention to the following: (1) The normal size of the pupils; (2) the position of the tongue; (3) the sudden development of the condition; (4) the lividity of the face throughout in the entire absence of obvious signs of laboured breathing; (5) the early arrest of the heart's action as discovered by auscultation and puncture; (6) the complete failure from the first to make air either enter or leave the chest by any artificial means.—*Brit. Med. Jour.*

In all doubtful cases of injury to the skull, exploratory operation is justifiable.

OBSTETRICS.

The Treatment of Eclampsia.

At the Academie de Medecine M. Charpentier read a paper on the treatment of eclampsia. Every woman, he said, pregnant and albuminuric being exposed to eclamsia, and the milk *regime* producing marvellous results in such cases should be consulted as regards her urine, and when the slightest trace of albumen is detected an absolute milk diet should be ordered as *preventive* treatment. Once the eclamsia declared, bloodletting should be resorted to if the patient be of plethoric disposition. From twelve to fifteen ounces of blood might be removed, and then chloral should be administered. If the woman be delicate and the phenomena of cyanosis but little marked, chloral alone will generally be sufficient. In an obstetrical point of view the following rules are useful to bear in mind: leave to Nature as far as possible the delivery; if the labor be tedious, on account of weak contractions of the uterus, the delivery can be hastened by the forceps, or the cephalotribe if the child be dead. Provoked delivery should be reserved only for exceptional cases, but in any case the Cæsarian operation should be rejected as well as deep incisions into the neck of the womb.

M. Gueniot said that eclampsia consisted of two fundamental elements, poisoning of the blood and excitability of the medullar reflexes. In certain cases the toxic principles play but a secondary *role*, while in others they constitute all the symptoms. In the first case it is frequently sufficient to relieve the woman of the fœtus, or to give chloroform or choral to arrest the attacks. In the second, on the contrary, a cure is very rare, and blood-letting seems to offer the only chance. As to chloroform and chloral he administered in the following manner: He gives the former until anæsthesia is complete, and keeps the patient under its influence in a deep sleep, for five or six hours; it is rare after such treatment that the attacks return. Chloral is more easily employed as it does not necessitate the presence of the attendant constantly at the bedside. It should be given in large doses and in enema so as to avoid the irritating effects on the stomach.

M. Tarnier considered that no matter what kind of treatment is adopted, eclampsia is always a grave malady, consequently the preventive treatment as recommended by M. Charpentier should be rigorously prescribed in every case where albumen is present in the urine.—*Med. Press and Circular.*

The Management of the Placenta in Delivery.

Beaucamp, of Aix-la-Chapelle (*Archiv. f. Gynak.*, vol. lxii, pt. 1, 1892), publishes statistics of 500 labors conducted after Ahlfeld's principle of leaving the placenta two hours' time to come away. He found that the average of flooding was high. In 163 cases where flooding occurred the placenta was discharged spontaneously 89 times before the two hours had elapsed; in 67 cases it had to be expressed. Beaucamp concludes that expression of the placenta should be performed within half an hour, as that practice involves less risk of hemorrhage, nor does Ahlfeld's practice lessen the risks of retention of membranes. This occurred in 102 out of the 500 cases. A very important piece of advice is added to these statistics. Beaucamp urges, contrary to Ahlfeld's opinion, that the midwife must stay with the patient yet two hours more after the delivery of the placenta; for in his 500 cases flooding came on in 12 cases within the first two hours after the placenta had been expelled. Hence, if the midwife be ordered to wait two hours for the placenta, it is a grave mistake not to instruct her to stay yet two hours longer after it is born.—*Ex.*

GYNECOLOGY.

Bleeding Fibroids and Endometritis.

Nitot (*Bull. et Mem. de la Soc. Obstet. et Gynec. de Pasis*, November, 1892) recently removed large bleeding fibroids from two women over 40 years of age. In neither was their any trace of the fungous endometritis to which the bleeding seen in many cases of fibroid has been attributed. In one case the blood was seen oozing from innumerable pores, the dilated orifices of the glands of the endometrium. In the other the mucosa looked perfectly normal. In cases where endometritis exists that disease is a complication or coincidence, but not the cause of hemorrhage. The bleeding is, in Nitot's opinion, caused by the vascularity of the uterus above. Lucas-Championniere, in the discussion on Nitot's specimen, said that the endometritis was exceptional in fibroma. The true cause of the hemorrhage was unknown. It occurred in cases where the myomatous growth lay far from the mucous membrane, and might be absent in cases where the growth was in immediate contact with the mucosa.

Urticaria and Death after Ovariotomy.

Omori and Ikeda (*Centralbl. f. Gynak.*, 1892, No. 52), of Fukuoka, Japan, make note of this case in a series of 100 ovariotomies. The patient was aged 54; the tumor was a small dermoid, universally adherent to intestine and omentum; the pedicle was long, and also adherent to the surface of the tumor. On the morning of the fifth day the temperature rose very suddenly, and the whole body was covered with an eruption having all the characters of urticaria. Death occurred within a few hours. The fatal result was attributed to peritonitis, but the authors of the paper admit that they were doubtful on the point.

ARMY AND NAVY.

U. S. ARMY, FROM MARCH 5TH, 1893, TO MARCH 11TH, 1893.

1st Lieutenant Henry R. Stiles, Assistant Surgeon, U. S. Army, will be relieved from duty at Jefferson Barracks, Missouri, on receipt of this order at that post, and will report in person to the commanding officer, Fort Omaha, Nebraska, for duty at that post.

Captain Marcus E. Taylor, Assistant Surgeon, U. S. Army, will be relieved from duty at Vancouver Barracks, Washington, at the expiration of his present leave of absence, and will report in person to the commanding officer, Fort Logan, Colorado, for duty at that post.

U. S. MARINE HOSPITAL SERVICE, FOR THE FOUR WEEKS ENDING MARCH 3RD, 1893.

Murray, R. D., Surgeon, when relieved, to proceed to Key West Quarantine for duty, March 1, 1893.

Bailhacha, P. H., Surgeon, to proceed to New York., N. Y., for duty Feb. 13, 1893.

Purviance, George, Surgeon, detailed as Chairman, Board of Examiners, Feb. 13, 1893. To inspect Ready Island, Delaware River, February 23, 1893.

Hutton, W. H. H., Surgeon, to proceed to Solomon's Island, Md., as Inspector, Feb. 6, 1893. When relieved to proceed to Detroit, Mich. for duty February 13, 1893.

Hamilton, J. B., Surgeon, detailed Chairman Board to prepare Quarantine regulations, February 16, 1893, detailed as Chairman Board to examine officer Revenue Marine Service, February 28, 1893.

Austin, H. W., Surgeon, detailed as member Board to prepare Quarantine Regulations February 16, 1893.

Gassarrag, J. M., Surgeon, detailed as member Board of Examiners, February 13, 1893.

Godfrey, John, Surgeon, when relieved to proceed to San Francisco, Cal., for duty February 13, 1893.

Irwin, Fairfax, Surgeon, detailed for duty in office of the U. S. Consul, Marseilles, France, February 25, 1893.

Wheeler, W. A., Surgeon, detailed as Recorder Board of Education, February 13, 1893. Detailed as member Board to prescribe Quarantine Regulations, February 16, 1893.

Stoner, G. W., Surgeon, to proceed to Baltimore, Md., for duty, February 13, 1893.

Warden, Eugene, P. A., Surgeon to proceed to Baltimore, Md., for temporary duty, February 23, 1893.

White, J. H., P. A., Surgeon, to proceed to Hamburg, Germany, for duty February 27, 1893.

Carrington, P. M., P. A., Surgeon, granted leave of absence for seven days, March 1, 1893.

Williams, L. L., P. A., Surgeon, when relieved to proceed to Charleston, S. C., for duty February 14, 1893.

Bratton, W. D., P. A., Surgeon, detailed as member Board to examine officer Revenue Marine Service, February 28, 1893.

Kingorm, J. J., P. A., Surgeon, detailed as member Board to prepare Quarantine Regulations, February 16, 1893.

Guitoras, G. M., P. A., Surgeon, to proceed to Gulf Quarantine for duty, February 23, 1893.

Geddings, H. D., P. A., Surgeon, detailed as recorder Board to prepare Quarantine Regulations, February 16, 1893.

Wertenbaker, C. P., P. A., Surgeon, detailed as Recorder, Board to examine officers, Revenue Marine Service.

Condict, A. W., Assistant Surgeon, ordered to examination for promotion, February 14, 1893.

Hussey, S. H., Assistant Surgeon, ordered to examination for promotion, February 14, 1893.

Perry, J. C., Assistant Surgeon, ordered to examination for promotion, February 14, 1893, to proceed to Savannah, Georgia, for temporary duty, February 25, 1893.

Smith, A. C., Assistant Surgeon, ordered to examination for Promotion, February 14, 1893.

Roseman, M. J., Assistant Surgeon, to proceed to Hamburg, Germany, for temporary duty, February 14, 1893. When relieved to proceed to Antwerp, Belgium, for duty, Feb. 25, 1893.

Aydegger, J. A., Assistant Surgeon, to proceed to Charleston, S. C., for duty, temporary, February 24, 1893.

Eager, J. M., Assistant Surgeon to proceed to Key West, Fla., for duty, March 1, 1893.

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ORIGINAL ARTICLES.

J. R. LAMBERT, M. D., Quincy, Ill.
Malarial Fever 437

CLINICAL LECTURES.

HAROLD N. MOYER, M. D., and HENRY M. LYMAN, A. M., M. D., Chicago, Ill.
Paranoia 441

COMMUNICATIONS.

N. W. CADY, M. D., Logansport, Ind.
Cases Showing the Effects of Impacted Cerumen in the Auditory Canal 444

W. L. BRASIUS, M. D., Gallatin, Mo.
Chronic Inversion of the Uterus 446

JNO. J. THOMAS, M. D., Youngstown, O.
Ipecac as an Oxytoxic and Parturifacient 447

J. D. JUSTICE, M. D., Belle Plaine, Kan.
Is It Catelepsy, Diurnal Epilepsy, Hysteria: Cerebral, Spinal, Functional or Organic? 448

SOCIETY REPORTS.

The Surgical Society of Louisville 449

The Western Association of Obstetricians and Gynecologists 457

CORRESPONDENCE.

New York Letter 462

EDITORIAL

Practical Cleanliness 463

TRANSLATIONS 464

BACTERIOLOGICAL NOTES. 467

ABSTRACTS 469

THE LIBRARY TABLE. 472

CURRENT LITERATURE REVIEWED . . . 473

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ORIGINAL ARTICLES.

MALARIAL FEVER.*

J. R. LAMBERT, M. D., Quincy, Ill.

Malarial fever, as described to-day, is classified into intermittent, remittent and pernicious malarial fever, and malarial cachexia—all depending upon the same cause, a miasmatic poison. There is one feature common to all of these except the last, and that is fever which remits and returns periodically. The malarial poison is widely distributed over the earth's surface, both in northern countries and in the tropics, and in regions both dry and moist, but certain conditions of heat, moisture and vegetation greatly encourage its production. High annual temperature produces the more pernicious forms of malaria while more moderate temperature predisposes to the milder forms. Its effects are also seen at high elevations, as in the table lands of Castile Spain and the eastern slopes of the Andes.

The malarial poison is certainly of a very peculiar nature; a person may move into an affected locality and not be affected by the poison, then he may move to another locality known to be free from the disease, and in a period of time, from a few days to even years afterward, be brought down by its harassing symptoms. Some are affected in a very short time after exposure, others not at all. We should conclude from this that the malarial poison is not simply a gaseous emanation from decomposing vegetable matter, for no such inorganic substance is capable of producing fever of a remittent type, or of remaining latent in the system for a length of time and then breaking out all of a sudden.

The only hypothesis which would seem to explain the various manifestations of the malarial poison, is that of the existence of an infective specific organism inhabiting the soil and capable of growth when introduced into the body through the respiratory or alimentary tracts. To demonstrate this hypothesis then, we have only to prove the existence of such an organism. In 1879, Klebs and Tommasi Crudeli announced the discovery of a bacillus supposed to produce malaria. It was found in the soil taken from the Roman Campagna and grew on gelatine and other media in the form of long filaments composed of short joints. Their observations have not, however, been confirmed. In 1880 Laveran discovered a peculiar parasite in the blood of persons affected with malarial fever. His observations were little thought of till some years later, when his experiments were confirmed by Marchifavi, Celli and Golgi, in Italy, and Councilman, Osler, Sternberg, Dock, James and others in this country. The organism thus described belongs to the class Protozoa, or the lowest form of animal life. That it is a true parasitic organism is acknowledged by the highest authorities on Protozoa.

This organism, which has been called the Plasmodium Malariæ, is found in the red blood corpuscles and also in the blood in a free state. In size they vary from

* Read before Adams Co. Med. Soc., Jan. 9, 1893.

one-fourth to nearly the whole diameter of a red blood corpuscle. According to Osler they exist in the following forms: *First,* an unpigmented hyaline body within the red corpuscles which displays active movements. *Second,* a pigmented amœboid body within the red corpuscles which may increase in size and form. *Third,* a segmenting body in which the protoplasm divides into a variable number of definite small spheres. *Fourth,* crescentic bodies, the so-called crescents, which develop within the blood corpuscles and form characteristic and distinctive structures. *Fifth,* flagellate organisms which may be seen to develop from the intercellular pigment organisms, and from ovoid bodies which are altered crescents. *Sixth,* free flagella. When unstained the bodies are clear and homogeneous in appearance, very hard to detect. In a drop of fresh blood they are endowed with a amœboid movement similar to white blood corpuscles, changing their form with great activity. The pigmented amœba derive their color from the red blood corpuscles, which latter they leave in the form of yellow or colorless shells.

The plasmodium is found in all varities of malarial fever without exception. Its presence accounts in a remarkable manner for the great destruction of the red corpuscles and the deposit of pigment in all the organs of the body. According to Golgi the different paroxysms of the disease correspond to a period of segmentation in the organism; the different types of the disease being due to a predominance of a certain form of the plasmodium. The plasmodium is not capable of life and growth outside of the body on any culture media as yet experimented with, and for this reason inoculation experiments with a pure culture have not been possible. Celli and Marchiafava have successfully inoculated persons unaffected with malarial fever with blood containing the organisms, with the effect of producing the disease. The blood in these cases, which had previously been free from the plasmodii, was found to contain an abundance of the organisms. This, together with what has been said, and the fact that quinine causes the simultaneous disappearance of the plasmodium and of the malarial paroxysms, seems abundant proof that the true cause of all malarial fever is the presence of the plasmodium malariæ in the blood.

The pathological changes which occur in malarial fever are dependent in degree on the amount of poison. The most common occurrence is the pigmentation of all the organs of the body, and especially of the capillary walls of the liver and spleen. These latter organs are usually swollen, sometimes to such an extent as to cause rupture.

Accompanying these changes is the great destruction of the red blood corpuscles as before mentioned. According to Kelsch, an ague patient was found to lose one million blood discs per cubic millimetre, in twenty-four hours. When we consider that the standard number of blood discs is from five to six millions per cubic millimetre, this seems like an almost irreparable loss. General dropsy and anasarca, with effusion into the serous cavities is also a concomitant or sequel of malarial fever.

It hardly seems necessary to describe the clinical history of each type of malarial fever, for we are all familiar with the different symptoms which go to make up a paroxysm. Probably the most common form of the disease which we meet with in this locality is that in which the patient complains of pains or aching in the head, back and lower extremeties—a tired feeling. Accompanying this are usually loss of appetite, constipation, a bitter taste in the mouth on arising in the morning, a coated tongue and a foul breath, all making up a general line of symptoms to which the name bilious has been applied. The patient may complain of chills or chilliness and a feeling of pyrexia, especially towards evening. This constitutes the symptoms of probably the lightest form of malarial toxæmia.

Next in frequency is the *intermittent* type, characterized by recurring paroxysms at regular periods which consist usually of a chill, during which the thermometer shows a rise of temperature, the hot stage, and the sweating stage, following each other, and lasting variable periods of time. After the patient has been afflicted with these ten or twelve days, they may cease spontaneously without medication, but are very liable to recur; frequent recurrences leading to the condition of malarial cachexia. The most common form of intermittents is that which returns every twenty-four hours, called a quotidian. In this form the plas-

modii are small at first, gradually increasing in size, and showing very active movements. At the time of the paroxysm, they have usually grown in size sufficient to fill an entire red blood corpuscle. They then undergo segmentation or sporulation. A paroxysm occurring every forty-eight hours is called a tertian. In this the blood corpuscles contain small amœboid bodies which gradually grow and become pigmented, and about the time of the chill undergo segmentation into fifteen or twenty separate bodies, aggregating around the central clump of pigment. Very rarely we have paroxysms occurring every seventy-two hours, called quartans. Of ninty-eight cases of intermittent fever in the U. S. Army, only seventeen were quartans.

In the remittent form of malarial fever there is a constant elevation of temperature with paroxysms resembling the intermittent form. In its first stages it very much resembles typhoid fever, but can readily be diagnosed from this by a microscopical examination of the blood. The crescent-shaped amœbæ are largely responsible for this form of fever.

Pernicious malarial fever is somewhat rare in this locality. The common name for it is congestive chills. It occurs in three forms. *First*, in which the patient is seized with delirium or coma, with high fever, hot, dry skin, etc. He may regain consciousness only to be seized with another paroxysm. A third chill is usually fatal. *Second*, the algid form which usually begins with vomiting and prostration. The patient is cold with subnormal temperature. The pulse is weak, respiration rapid, and urine frequently suppressed. The whole disease tends toward adynamia and it is frequently given that name. *Third*, the hemorrhagic is another severe variety of the pernicious remittents, hæmaturia being one of the most prominent symptoms.

Malarial Cachexia, is a condition frequently seen especially in this locality. It occurs in those inhabiting our neighboring bottom lands. Those affected may have no chills at any time, but there is probably always more or less fever. They present an appearance of profound anæmia sometimes, with yellow, sallow complexions and bloodless mucous membranes. There nearly always accompany these, symptoms of gastric disorder, anorexia, pain, or heaviness in the abdominal region after eating, coated tongue, fetid breath, constipation, etc. We frequently have an association of typhoid fever symptoms with those of malaria. This has been described as typho-malarial fever and, although it hardly seems possible to me that the two etiological factors of the two diseases can unite and produce a disease in common, yet the two causes undoubtedly modify each others action and we can have typhoid fever modified by malarial, and *vice versa*. This combination is frequently seen in the Mississippi Valley and constitutes under the name of typho-malarial fever, one of the most frequent of vernal and autumnal diseases. The association of symptoms may exist in a good many forms, but probably the most common is that in which the patient is anæmic, feels generally weak and languid, with headache and a tired feeling in the lower extremities. There may or may not be pain over the abdomen, with iliac gurgling and very rarely an eruption of rose colored spots on the chest. There is evening rise of temperature, sometimes epistaxis, frequently low muttering delirium with dullness of the special senses, bowels usually constipated, anorexia and the general symptoms which we call typhoid. In fact, to my mind it is typhoid fever but it is undoubtedly modified by the malarial poison. Such cases usually respond well to quinine which strengthens my belief in their malarial origin.

In the matter of treatment we know how Sydenham, over two hundred years ago, cured intermittents with Peruvian bark. The size of the dose as given by him was, 40 grains of the powder every four hours, which represents about 1½ grains of the combined alkaloids or about one grain of quinine. It is remarkable that for two and a half centuries this drug has been used as a specific in this disease, but it is undoubtedly entitled to first rank. The form now most generally used is the sulphate of the alkaloid quinine. It has been found that one grain doses of this given three times a day, will stop nearly every paroxysm of ague, but as larger doses are much more sure to stop them, it is the common mode at present to give from 20 to 40 grains a day for the first few days and smaller doses continued for some length of time afterwards.

As to the time of administration physi-

cians differ greatly. It is my plan to give from 10 to 20 grains of quinine 4 hours before the expected paroxysm. If this can be done, the attack will nearly always be aborted. If seen right before or during the chill, this may be stopped by a teaspoonful dose of chloroform. This frequently produces quiet refreshing sleep and relief from further paroxysms. Pilocarpine, grains one-fifth hypodermically, or morphine sulphate, grains one-fourth, given right before or during the chill will also frequently stop it. During the hot stage the patient is made more comfortable by sponging the body with cool water. Following this, quinine should be given in five grain doses every four hours, till the patient shows symptoms of cinchonism. The remedy should then be reduced to wo or three grains, three times a day, nd continued for two or three weeks, and combined with iron if there be anæmia. Quinine is best given in solution with a mineral acid, preferably aromatic sulphuric acid, but the most prevalent form here is to give it in capsule. This usually answers very well, but its administration in this way should be followed by a small quantity of dilute hydrochloric acid to insure the dissolving of the gelatin coating. In the pernicious form the great indication is to cinchonize the patient as quickly as possible. This is best done by the hypodermic injection of quinine bisulphate 30 grains with 10 grains of tartaric acid, repeated every 2 or 3 hours. Or the amorphous hydrochlorate of quinine may be used in the same manner, or 40 grains of the bisulphate by enema. In the comatose form where there is such intense congestion of the brain and other internal organs, the patient should be put in a bath and douched with cold water. Nitrate of amyl or nitroglycerine are also used to reduce the internal congestion. Simpler means are hot blankets, hot water bottles, and stimulants.

It is well to remember also that pilocarpine hypodermically, or chloroform by the mouth will usually avert an approaching paroxysm. You will frequently meet with cases of malarial fever in which the patient has been taking quinine on his own prescription, in a very indiscriminate manner with little or no good resulting. These cases are usually benefited by first giving a good cathartic and following this up with twenty or thirty grains of quinine a day for three or four days, and then giving a tonic, as elixir of calisaya and iron. You will also meet with cases which hang on in spite of large doses of quinine given systematically. In these cases open the bowels freely and give one-half ounce of Warburg's tincture, undiluted, and withold all drinks. In three hours repeat the dose. The patient soon breaks out in a profuse aromatic sweat and is then usually convalescent. This is somewhat of an heroic remedy, but it is exceedingly valuable in severe forms of the disease. Next in value to quinine is arsenic, preferably in the form of Fowler's solution, five drops three times a day, and increasing until physiological effects are observed. This is a remedy of considerable value in cases of malarial fever of mild grade but long-standing. The oil of eucalyptus, one drachm a day in divided doses, and the picrate of ammonium in one-sixth grain doses, three times a day, are also recommended.

Quinine is contra-indicated in disease of the middle ear, or inflammation of the gastro-intestinal tract. It has recently been recommended to give ergotin with quinine as a preventive of tinnitus aurium. To infants, quinine is best given by enema with starch water and laudanum. To children, by disguising the taste in syrup, or aromatic elixir of licorice, or, what I prefer, syrup of yerba santa or yerbazin. The sulphates of quinidine, cinchonine and cinchonidine are all used the same as quinine, but in about one-third larger doses.

The Treatment of Pleurisy.

M. Trasbot contributes a very interesting paper (*L'Abeille Med.*) to the discussion at the French Academy of Medicine, treating the subject from the standpoint of the veterinarian. He concludes that: 1. The sero-fibrous pleurisy of animals has nothing in common with tuberculosis. 2. Frequently the relation between its development and chilling is indisputable. 3. It is impossible to liken the sero-fibrinous pleurisy of the horse to an eruptive fever, or to a cyclic disease. 4. Antiphlogistic medication and derivative applications surely exercise an advantageous action. 5. Thoracentesis can be done without danger to the horse, and constitutes a measure to which we may have recourse before the effusion gives rise to asphyxia.—*Can. Lan.*

CLINICAL LECTURES.

PARANOIA.

*HAROLD N. MOYER, M. D., and †HENRY M. LYMAN, A. M., M. D., Chicago, Ill.

Gentlemen: This patient, a boy, is 13 years old. His mother tells us that he began to act strangely in July last. He imagined that his mother was going to poison him, and that he had yellow fever and tape worms. He has one brother, who is 12 years of age and in good health. His father died of influenza at the age of 47. He was a temperate man. The mother had two aunts on her father's side who died in an insane asylum; no trouble on her mother's side.

You observe then that we have here a family history in which there is a distinct statement of mental trouble in relatives upon the mother's side, sufficiently pronounced to have placed them in an asylum. She states that domestic and financial trouble seemed to be the exciting cause of the disease on her father's side. Whatever the exciting cause the trouble seems to have skipped a generation; her own generation remaining free from any mental disturbance.

The mental trouble of the boy commenced last July, and there is no cause for it so far as the mother knows, no sickness nor injury of any kind preceding it. The patient worked for one firm nine months and for another firm four months. He has been working in a number of places since July. He would leave his places, saying that the boys kept bothering him. He is nervous, but sleeps well and his appetite is good.

That is the history of the case so far as we have elicited it. Let us analyze some of the chief points, because they are interesting in a diagnostic way. *First*, we have a family history in which there is hereditary mental trouble. *Second*, a generation back there were two cases of insanity. *Third*, the age of the boy, thirteen years, which is the period of development of puberty.

Puberty is the time of life when nervous troubles are very apt to set in, because the nutritional changes that are taking place at that period, are prone to furnish a basis for their development. There is a state of unstable equilibrium during which slight causes may push a person into disease. This is a critical period with the boy.

There was no depression in this subject, no exaltation or melancholia proper, but the disturbance began by a change in the ideas, the emotions not being affected. He conceived the delusion that his mother put something in his food to poison him and, since last July, he has constantly held to that one idea. He has told it to his brother. There is a point in the history which we have not thus far brought out. On one occasion, when the patient's mother brought home a bottle of sweet spirits of nitre, he insisted that it was some drug to put in his food, and that it was the oil of vitriol. She showed him the label on the bottle to convince him that it was not the oil of vitriol, but sweet spirits of nitre. He was not convinced of the fact and said he knew very well that the bottle was falsely labeled.

Connecting these points will give us the diagnosis of a case such as this. His delusion affects the reasoning apparatus, and is one which is logically supported by argument. This case then belongs to the class of reasoning insanities in which the logical reasoning and the judgment are primarily affected. Such cases are not accompanied by exaltation or depression, consequently we can properly class this case under the head of *paranoia*, which is a general term given to the insanities which include logical perversions or disturbances in the reasoning apparatus.

In most cases that develop in youth, or later in life, there is hereditary disease, as we find in this case. In the absence of a family history, we could assume a neurotic heredity in almost all of these cases, but when we have it distinctly stated, it aids materially in the diagnosis.

There is one form of insanity that

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†Professor of the Principles and Practice of Medicine in Rush Medical College.

might be confounded with it, and that is the so-called hebephrenia,—the insanity which developes at the period of puberty. It is called by some writers the insanity of pubescence, and has some striking peculiarities. I do not regard this case as one of hebephrenia, because in that condition faulty ideas are not so fixed and are not so thoroughly reasoned out as they are in this instance. The patient has some of the clinical appearances of hebephrenia.

Note the rather fixed attitude of the head to one side. He keeps it in that position and scarcely moves it. But the mental condition, with the mode of onset, and the logical perversion, point conclusively to *paranoia.*

Some writers do not make any distinction between paranoia developing at this age, and the insanity of pubescence. I think it is incorrect because the insanity of pubescence is a favorable form of insanity, while in a case of paranoia with distinct logical perversion, there is not the same tendency to get well. The disease remains stationary or gets worse. The patients always have certain logical defects in their mental make-up. It may be another form of mental trouble of the melancholic or exalted type. A clinical picture of hebephrenia is a variable one, whereas paranoia, developing at this time, presents constant features and has a different prognosis. These considerations lead me to say that this was a case of paranoia.

The prognosis is unfavorable. Let me again speak of a point or two in the history aside from the logical perversion and the distinctness with which he holds to the one delusion mentioned, and finds reasons for supporting it in various external circumstances and surroundings.

The history of this young man's employment is interesting. He was employed nearly two years ago for the first time, being then eleven years of age. He worked nine months in one place; the next place he worked only four months; then he ceased to have regular employment, and the present trouble developed. In every case of paranoia that has come to this clinic, we have found it distinctly stated that the patient never remained long in one place. They develop ideas and delusions regarding their surroundings and fellow workmen until they are driven from one place to another. They are rarely discharged. The employers of this boy have been satisfied with him. He has always done his work well. He has had five or six places since last July, but was not discharged from any. He left simply because he developed delusions regarding those around him.

The essential condition in paranoia is a perversion of the reasoning faculties, the emotions remaining but little, or not at all, affected.

REMARKS BY PROFESSOR LYMAN.

The case which Dr. Moyer has just presented to you is an excellent illustration of the manner in which persons develop mental disorder at the age of puberty or later in life. I remember the case of a young man who came under my observation. He was a little older than the patient before you, and his father was a man of wealth. The father came to me in the greatest distress, saying he had discovered that his son had for some time been engaged in petty thieving. There was no reason for it as the young man had a liberal allowance of money. On making an investigation, the father found his barn nearly filled with trophies which the son had brought home and deposited there. In walking along the street he would go into book stores and filch books and other things that were of little or no earthly use to him, and some of which were of no value whatever. He would take them up, put them under his coat, and store them in the barn. The only explanation for such strange behavior was mental derangement. On ordering the young man to an insane institution, and his retention there for a time, he made an excellent recovery. He came home perfectly sound in mind and body and has not manifested a symptom of the disease since.

This young man could give no reason for filching various things. His case was one of insanity of adolescence, dependent upon an unstable condition of the brain.

Dr. Moyer has called your attention to the delusions of paranoiacs; that they are fixed delusions that enter into the life of the patient and dominate all his thoughts and actions. Although active manifestations may be suppressed from time to time, still the delusion is fixed, is a part of the patient's being and he cannot get rid of it. No treatment cures it. The patient's health does not suffer; and there may be no history of sickness, disease, or ill health

of any kind; but there is usually a history of hereditary insanity in the family, among the ancestors of the patient—if not of the parents, of the grandparents, or other near relatives. The disease is very apt to skip a generation. The patient is capable of attending to his daily avocation, of conversing logically and consistently, and perhaps with vigor and interest, about everything excepting the subject of his delusion. He is perhaps able to carry on his business in a thoroughly logical, systematic way. These are characteristics of this disorder. It is not because the patient is diseased physically, it is because he was not made right in the first place. He has received from his ancestors a badly constructed brain, and this brain, like all badly constructed instruments, brings out imperfect work. It is not the kind of work that a perfect machine will produce, for the brain, when badly constituted, will be badly balanced, badly arranged and badly interpreted.

I remember a young man who came under my observation a good many years ago. The celebrated actor, Edwin Booth, was assulted here in a theatre. A man from the gallery fired a pistol at him. He was immediately arrested, taken to jail and subjected to investigation. Mr. Booth and other gentlemen appeared as witnesses. The investigation showed that the young man was eighteen or nineteen years of age, the son of a washerwoman who had a bad family history. He was impressed with the idea that he was a a great actor; that he had wonderful histrionic genius. He said that he was the son of Edwin Booth. He was asked how that could be. The lawyer said,—'Edwin Booth and your mother were not married.' He replied.—"That is true, but nevertheless Edwin Booth is my father, and I am his illegitimate son." He adhered to that view of the subject in spite of everything.—"Why did you shoot Mr. Booth if he is your father?"—"Because he wronged my mother." This was his delusion: that he was a great actor, because he was the son of an eminent actor who he believed had wronged his mother; therefore he took the law in his own hands. The young man was perfectly rational in other respects and apparently in good health. He was committed to an asylum, remained there a considerable time, and then somebody succeeded in getting him out. The first thing he did was to purchase a copy of Shakespeare, and to renew the delusive acts and thoughts that he had maintained before his confinement in the asylum. The delusion is fixed in these cases and dominates the life of the patient, and although it may be suppressed for a time, it will crop out again. When questioned in court as to why he shot Mr. Booth, he said he did not know, but he knew it was wrong, and was sorry for it. "Would you do it again?" "No." He talked as reasonably as any man who had committed a fault and was sorry for it; at the same time such patients are never trustworthy.

Another case came under my observation, a young man 22 years of age. The other members of the family thought he was insane. He had strange ideas. He had the idea that his father and mother had turned Mormons and had started a Mormon institution in their family. He was very much disturbed about Mormonism going on in the family. I asked him if he really had had these impressions, and he said—"Yes." He had gone so far as to go to the sheriff of the county and talk with him about it. I said to him—"Do you think so now?"—"No." "Are you sure that your father and mother are all right now?"—"Yes."

I then had some conversation with the father and mother and told them they must look out for the young man; that his case was a serious one; that if there was any evidence of return of his delusions, or if they found he was not manageable they should have him sent directly to an asylum and put under surveillance there. They did not like that idea. People are prejudiced against institutions of that kind, and when you talk with them about the subject many consider it an outrage upon their dignity. A short time thereafter I picked up a newspaper and saw an account of a murder committed. I learned afterwards that this young man was engaged one day in plowing in the fields, as quiet and peaceable as any young farmer, when all of a sudden he stopped his horse, left the plow, went back to the house, took his gun and shot his mother and sister and laid their bodies out on the piazza. The explanation he gave of it was this: That he became impressed with the wickedness of his family, with the Mormonism that was going on,

and while he was plowing he could not resist the impulse to go and execute divine justice upon the offenders.

So you see the delusion may be suppressed or eradicated from the mind of the patient for the time being, yet there is no certainty that it will not recur and dominate his life eventually.

COMMUNICATIONS.

CASES SHOWING THE EFFECTS OF IMPACTED CERUMEN IN THE AUDITORY CANAL.

N. W. CADY, M. D., Logansport, Ind.

In the last sixteen years it has been my lot to come across a great number of cases of body and mental discomfort which were found to result from the presence of cerumen impacted in the auditory canal, and which were promptly cured by the removal of the offending matter. The text books have little to say of this subject, yet I am satisfied from my experience that many cases of both mental and physical anguish result solely from this cause and might be readily cured if the proper steps were taken to search out the cause of the abnormal symptoms. In the sixteen years which cover the time of my practice I have observed not less than two hundred of these cases, probably a greater number. Some of them had actually been under the care of alleged aurists who somehow failed to see what was quite evident to the unaided vision of an ordinary practitioner, that the ear canal was quite filled with cerumen.

My purpose in presenting this paper is to show some of the principal symptoms that I have observed, leaving it to abler hands to point out the nervous paths through which the various reflexes make themselves manifest. The chorda tympani and its relations to the other cranial nerves may possibly explain in part some of the phenomena observed.

My first case was that of a young man of twenty-five, who desired my services on account of what he termed a "spell of biliousness." As I entered the room and he rose to meet me I noticed that he reeled and staggered as if drunk. I failed to find any evidence of indigestion or fever, but did notice that he was rather hard of hearing. A close examination of the ear, with the aid of a paper funnel showed that the ear canal was loaded with wax. The removal of this was followed by instant relief. I found little reference to this trouble in any of my text books, but it was now evident to me that here was a probable cause of trouble that might easily be overlooked.

Case two was a musician in a cowboy circus band. As the procession passed my office I saw one of the riders reel in his saddle, and immediately dismount, covering his eyes with his hands. Shortly after he appeared in my office, asking for something to relieve his dizziness. He had been getting dizzier each day, and now he said that it had reached a point where he must have relief or give up his occupation. His hearing was so badly impaired that he could not hear a watch placed against his ear. My suspicion of hardened ear-wax was soon verified, and his hearing was found to be as good as ever.

Case three was a lady who had been in the care of an alleged specialist of Washington, D. C., for two years previous. Her complaint was that she feared she was about to lose her mind. A half hour after retiring she would find herself awake and in a state of mortal terror and oppressed respiration. This would happen several times in the course of the night, and gave her good grounds for her belief. I was ten miles from my office and had only a head-mirror of my ear outfit, but a couple of hours' work with a speculum improvised from a scrap of tin, and a hook made from a hat-pin removed a most astonishing collection of ear-wax and effected a complete cure.

Cases four and five were both men of mature years, and were supposed to be

subject to some form of epilepsy. Their accounts of the mode of invasion did not correspond with that of epilepsy, and in both cases I tried the effects of a lively vermifuge to test the question as to whether tape-worm might not have something to do with the trouble, but I had only negative results. Since an intense vertigo was a prominent symptom I investigated their ears and in each case found a hard, flinty mass of wax filling the *left* ear and pressing against the ear drum. Where the plug rested the ear canal was raw and granulated. These cases came to me about two years ago and I am still waiting for a recurrence of the epileptiform attacks.

Case six was an eight year old girl, active and fond of playing boy's games. After playing furiously for a half hour she would become suddenly faint and have to lie down to avoid falling. From each ear there was extracted a cigar-shaped roll of exfoliated epidermis, and that was the end of the trouble.

Case seven was a boiler-maker, aged thirty. He was brought to me one morning at two o'clock in a state resembling melancholia with a dash of delirium tremens. His conductor told me that the night before he became so wild that four strong men could scarcely control him, and the patient himself volunteered the remark that he was losing his mind. This, by the way, is a common belief of this class of cases, and I regard it as almost pathognomonic. An hours' work with pick and syringe removed a huge quantity of wax from both ears and resulted in a complete abatement of all symptoms.

These are only a few of the cases that I have met and are selected merely as illustrating the more prominent symptoms that result from the presence of impacted cerumen in the auditory canal.

I have noticed that impacted cerumen makes itself felt most when the air is heavily loaded with moisture. The wax is hygroscopic and at such times absorbs enough water to increase its bulk and produce vertigo. I have under observation now a young man who has been suffering for four months from a gradually increasing right hemiplegia associated with intense vertigo and a mental condition very nearly resembling dementia. I found that his hearing was variable, and acting on that suggestion removed from his *left* ear a tightly impacted, extremely hard and black mass of cerumen, and from the right ear a softer mass encased in pus. Where each mass rested the ear canal was eroded and exquisitely painful. The immediate result was the disappearance of the vertigo, but it will take time to tell whether or not any other result will follow.

Occasionally I have found from one to three forgotten cotton plugs, exhaling an odor of laudanum and sweet oil, packed tightly over a mass of wax that had caused the trouble which they were intended to relieve. Buttons, beans, grains of corn and wheat, and in one case a stiff bristle, were found to be exciting causes.

The most effectual tools for the removal of these offending bodies are few and simple.

Gruber's ear specula, a two quart fountain syringe filled with a weak solution of bicarbonate of potash and fitted with a glass nozzle, a small pick with a hook $\frac{1}{32}$ inch long, and a snare about $\frac{1}{8}$ inch in diameter made of fine piano wire answer all purposes.

A tin spout to hang to the patient's ear for the purpose of conducting away the water used is convenient.

The influence which foreign bodies and impacted cerumen have in producing functional affections of the brain and nervous system is well worth investigating. Dr. Jos. Rogers, Superintendent of the Northern Asylum for the Insane at this city, has set on foot an investigation of the condition in this respect of the patients under his care, but has not as yet gone far enough to declare any results.

I am satisfied that not less than ten per cent. of the population of adult years, if examined, would show impaired hearing as a result of the presence of impacted cerumen, and that fully half of this number would suffer more or less from vertigo. As a rule there is nothing to call the patient's attention to the ear itself as the possible source of the trouble. The hearing of one ear is usually retained in part, so that the loss of function in the other ear is not noted.

Some writer has recently called attention to the fact that a great many cases of supposed "cramp" (which is the cause usually alleged in case of death by drowning) are in reality cases of aural vertigo. I have often experienced a feeling of

vertigo and most intense bewilderment from getting water in my ears when I have been swimming, and I can readily understand how the effect of an ear plug might be enhanced to a dangerous degree under the same circumstances.

CHRONIC INVERSION OF THE UTERUS.*

W. L. BRASIUS, M. D., Gallatin, Mo.

Aveling says this condition occurs once in 100,000 births. Reeves and Madden find it less frequent, and in the Vienna Lying-in-hospital we have but one inversion in 280,000 labors. When we remember that thirty per cent. of the recent cases die from shock or hemorrhage, chronic inversion of the uterus is indeed a rare condition. And yet not so rare as to be without interest to the general practitioner. If I can offer a suggestion for the succesful treatment of this condition the report of the following case will have served its purpose.

Mrs. A., aged 44; had carried an inverted uterus, with all of the attending suffering and dangers, since the birth of her only child *twenty-five years* ago; losing an incredible amount of blood at almost every menstruation, she had become a confirmed invalid. For the last five or six months much of her time was spent in bed.

On July 28th, 1892, at 11 A. M., with bladder and rectum empty, I cleansed the vagina with warm carbolized water and mopped the entire endometrium—which was very vascular—with a fifty per cent. solution of carbolic acid in glycerine and applied the sigmoid repositor devised by Dr. Aveling.

The instrument, with about two and one-half pounds pull on the rubber bands, accomplished restoration by 6 P. M. July 29th, (thirty-one hours). Ten of these hours were lost by allowing the perineal bar to rest too far backward, directing the pressure anterior to the axis of superior straight. I removed the repositor and tamponed lightly with iodoform gauze. At 7 A. M., July 31st, (thirty-six hours) uterus was found reinverted. Applied repositor, and it turned again in twelve hours. I now removed the Aveling repositor and on a similar sigmoid rod introduced the vaginal pipe of an ordinary household syringe, wound and filled with gauze for drainage. With this I gained a depth of three inches, elevating the indented funders which I maintained for ten days, with daily removal and cleansing. Then the patient menstruated, with the loss of about two ounces of blood in five days.

The cervix now closed down and she was on her feet about the house on August 16th, (nineteen days after application of repositor).

Rectum was emptied by enema and bladder with catheter during the operation. A few small doses of morphia was all the pain-reliever required.

I would suggest that the push of the repositor be in the direction of *greatest resistance*, which will usually be found in the axis of the superior straight; that the pressure be not more than will accomplish gradual reduction; that when reposition is accomplished it be maintained by elevation of the indented fundus on some kind of intra-uterine appliance similar to the one described. That the most careful antiseptic precautions be observed goes without saying.

From the limited literature at my command I have been unable to find a report of Aveling's method having been used on this side of the Atlantic. The intra-uterine appliance referred to was suggested by the demands of the case in hand.

N. B.—March 1st, 1893. Patient has menstruated regularly and with normal flow up to this time, and expresses herself as having never enjoyed better health.

*Read before the Missouri Valley Medical Society, March 16, 1893.

Good Advice.—Miss Plumleigh (choking)—Oh, Mr. Dudekin! I—I really think I've swallowed a dreadful fly! What shall I do?

Dudekin—Deah girl, better swallow some fly-papah.

IPECAC AS AN OXYTOXIC AND PARTURIFACIENT.

JNO. J. THOMAS, M. D., Youngstown, O.

Two or three years ago my attention was called to an article by Dr. Draper, a British physician, upon the use of ipecac in the first stage of labor. It was claimed that the use of this drug in small and frequent doses not only brought about relaxation and dilatation of the os, but that it actually induced vigorous contractions of the uterus; intermittent in character, differing widely from the ergotic contraction, and very closely simulating the unaided expulsatory effort of nature. Determined to put the matter to a thorough and sufficient test, I at once placed in my obstetric bag a bottle of the wine of ipecac—the preparation used by Draper—and now, having closely observed the action of the drug in some scores of cases, feel that the conclusions arrived at should be brought to the attention of the readers of the Reporter.

My conclusions are these: That ipecac induces a rapid dilatation of the os uteri; that it promotes contraction of the uterus, and that its action is fairly certain and positive in the majority of cases. The administration of ipecac is about as certain to be followed by increased vigor of contraction of the womb as is the administration of ergot. Both drugs sometimes fail, and a cause of failure which I have frequently noted is a loaded stomach; an arrest of the process of digestion and absorption; a frequent condition during labor. In my experience ipecac does not possess the power of *initiating* uterine contraction; but given a case where labor has evidently begun, and where dilatation of the os has made some progress, the pains perhaps feeble and infrequent, the use of fifteen-drop doses of wine of ipecac every fifteen minutes will usually quite speedily bring about more rapid dilatation and greatly increased force of the pains; in other words a decided shortening of the first stage. In some subjects three or four such doses will induce vomiting, when it is wise to suspend the use of the drug for a time. In many cases I have found the effect of but two doses to be so striking as to excite the remonstrance of the patient, and a refusal to take more of what led to a marked increase of her pain.

It is easy to explain how ipecac from its nauseating properties might induce softening and relaxation, thus favoring dilatation of the os, but its oxytoxic properties appear to have been overlooked by therapeutists generally. Trousseau urges its employment in post-partum hemorrhage, and Bartholow endorses the practice, but neither claim that it acts by virtue of causing uterine contraction. In retention of the lochia where the uterus was greatly relaxed, I have found ipecac to cause prompt contraction and the expulsion of contents. I have found the remedy to be helpful in retained placenta occurring in miscarriage in the fifth month. Its employment was promptly followed by contractions sufficiently strong to bring about expulsion of the secundines.

Comment upon the frequent usefulness of an agent possessing the properties claimed for ipecac, is unnecessary. Every practitioner of obstetrics has very frequently felt the need of a harmless oxytoxic, one that can be used during any stage of labor without injury to mother or child. We have this in ipecac. Ergot, of course, has an established value as a powerful excitant of uterine contraction, but its use has narrow limitations even in the second stage of labor; while in the first it is not to be thought of. And yet, I once knew a legally qualified practitioner of medicine to administer an ounce and a-half of fluid extract of ergot within twelve hours, to a woman he imagined to be in labor—the os open to about the size of a five-cent piece. The woman lived through it but the child, I believe, did not. The legally qualified practitioner is still at large—and—but as Kipling would say, "That is another story." Pardon the digression.

Ipecac is more than a nauseant or emetic. It is an oxytoxic; and a fair trial of its properties in this direction will, I am convinced, lead the practitioner making it to the formation of an estimate of its value no less high than my own.

The normal pulse-rate of Napoleon Bonaparte is said by Corvisart to have been under forty beats per minute.

IS IT CATELEPSY, DIURNAL EPILEPSY (*Petit-Mal*), HYSTERIA: CEREBRAL, SPINAL, FUNCTIONAL OR ORGANIC?

J. D. JUSTICE, M. D., Belle Plaine, Kan.

E. M. ——, a fourteen year old girl of nervous temperament, had heretofore been healthy and vigorous and enjoyed the romps and exercises usual to children raised upon a farm. Her parents are living and healthy. A married sister and one brother died of phthisis at the ages of 30 and 24, respectively.

During the summer of 1890, the child carried some large watermelons for some distance, and continued to do this daily until she began to feel dragging sensations about the sacrum and lower abdomen. From this time on, while not so active, she was apparently as healthy as ever. No attention was given to the complaint by her parents.

In June, 1891, she complained of feeling badly, and her mother, as was her custom, indulged her in some blue pills followed the next day by a dose of quinine. This latter was speedily followed by "bowel hives." The itching was so severe and protracted that both mother and child became greatly alarmed; the neighbors were brought in "for to help scratch," and finally the doctor was sent for.

Arriving some hours later I found some rise in temperature, the skin aglow, with here and there a hive welt, but otherwise the patient was resting comfortably. From that time until now she would never be pursuaded to take quinine. In a few days she was in usual health.

During the following autumn she began to have general muscular twitchings with occasional inco-ordinate movements of hand or arm, mouth or face, not unlike chorea. About this time I again saw her and, owing to choreic symptoms, put her on tonics and recommended out-door exercise and withdrawal from school.

All directions were faithfully carried out, but to no purpose. For in a few weeks she began to have paroxysms each evening. These lasted from sundown until ten o'clock and often until midnight, and during them she lost all self control. She could not sit, lie or stand and made all sorts of maniacal demonstrations. If put to bed it required strong hands to keep her from injuring herself by thrashing herself against the wall or bed. These paroxysms occurred daily for nearly a month, when all the more frantic symptoms abated. But when she was put to bed, no matter how late, the general jumping and jerking of muscles began. No remedies appeared to do the least good, but after from two to six hours she would quiet down and sleep calmly until nine or ten o'clock the next morning, when she would awake refreshed and to all outward appearances perfectly healthy. Her appetite was good; she suffered no pain; there was no paralysis nor fever, and she grew fat and developed as any girl in sound health.

During the spring of 1891, menstruation came on and while at first irregular, soon got normal. She could walk with closed eyes to an object in a known locality but could not stand steadily with eyes shut. There was no abatement of her last symptoms after the establishment of her menstrual function, but within the past six or eight months they have materially changed. This brings us to January, 1893, the date of my last examination.

For the past year her menses have been regular and of a normal character. Lungs, heart and spinal column were sound as in health; body appears symmetrical, chest full, mammary glands developed proportionately to age; she is able to sleep and eat well, but after sunset each day she could not walk unless supported by a chair or the walls of the room.

I entered the family sitting room precisely at 5 P. M. on the day of my last visit and was greeted by the girl and her mother. The girl walked about the room in a perfectly normal way, but when requested to close her eyes and walk to a known object she could not do it—could not take two steps forward without falling. When requested to stand with her eyes shut, she would fall like a chunk of wood; but she could go about the room as before when her eyes were open.

A rest was now taken and our conversation turned to other topics. At sunset I asked her to walk. She replied "I cannot; the spell is on." I asked her how she

knew, and she stated that a dull ache always occurred in the front part of the head and forehead. If outdoors at play unmindful of the time, she felt this head symptom, she would run to the house, and, if too far away, she would fall to her knees and complete the distance by crawling. I asked her to try and she managed to get to her feet and walk sideways along the room supported by the wall. I endeavored in every way to get her to walk properly, but could not.

Muscular co-ordination is completely at fault. Neither can she walk if personally supported, as she says holding to a person or allowing them to hold her causes her to lose her balance on account of dizziness. While allowed to sit she can use her hands as well as ever. She plays games, knits, reads, sews or converses and no one would suspect her condition.

There has never been anything like a convulsion or paralysis. Her tongue is clear, and no tender spots can be found.

A number of physicians have seen and proposed to cure her, but she continues to resist remedies and to remain a puzzle, at least to me.

SOCIETY REPORTS.

SURGICAL SOCIETY OF LOUISVILLE.

Stated Meeting February 13th, 1893.

Dr. J. M. Mathews, President *pro tem*, in the Chair.

STRANGULATED FEMORAL HERNIA; RESECTION OF THE GUT AT THE END OF ELEVEN DAYS; END TO END ANASTOMOSIS; WOLFLER'S METHOD MODIFIED; RECOVERY.

[Abstract.]

Dr. Ap. Morgan Vance: I was called January 30th, 1893, by the attending physician to see K. G., aged 33; domestic; giving the history that eleven days previously she was taken sick suddenly with vomiting, followed by purging; purging ceased early first day, vomiting continued until seen by the writer. Evidently thorough examination had not been made by the attending physician on account of the extreme modesty of the patient. Closer investigation revealed strangulated femoral hernia of the left side. The patient gave evidence of extreme exhaustion, pulse being 150, the temperature, according to the physician in attendance, sub-normal. No previous history of hernia could be obtained and the patient had never been seriously ill before, having occasionally suffered from "bilious attacks" of short duration.

Nitro-glycerine, one one-hundredth grain, was administered hypodermically at once, and patient removed to the Norton Infirmary where, after slight preparation, operation for the relief of her condition was begun.

The tumor was found to be about the size of a hen's egg; sac contained half ounce of very dark fluid; sac was much thicker than is ordinarily found in a recent hernia, so it is probable that the hernia had existed without the patient's knowledge. The very tight constriction was relieved by the hernia knife, and after thorough irrigation with sterilized filtered water, the intestine was carefully drawn out, when one large perforation discharging fecal matter was brought into view. The intestine was sphacelous in the line of constriction which included a large portion of the convexity, the mesenteric border not being involved. This line of slough was fully four inches in length. Resection was immediately determined upon, and an end to end anastomosis decided to be best suited to the condition. Eight inches of intestine were quickly removed with scissors; instead of clamps being used, the assistants making digital compression on either side of the strangulated portion.

There was no hemorrhage and the suturing was rapidly done with cat-gut number 0. During the whole procedure the parts were frequently douched, and

every care taken to prevent infection of the cavity. With some little difficulty the sutured part was returned to the abdomen, the sac being removed high up, and deep approximation sutures applied to the canal. The wound was closed with silkworm gut, with a gauze drain in the lower angle. The patient's condition at this time was better than when first seen, the pulse being 135 when the operation was commenced, falling to 120 before its completion. The operation was begun two hours after patient was first seen; there was certainly a very decided effect from the nitro-glycerine; the operation occupied fifty-three minutes.

The fact that the patient had continued so long without nourishment rendered her chances of recovery much less, as an element of exhaustion had to be considered and combatted. Vomiting continued several hours after operation, the substance being a greenish watery fluid. Hypodermics of morphia were given as needed for several days. Twenty-four hours after operation patient received and retained two drams of wine and appolinaris water; afternoon of the same day she was given wine and beef peptonoids. Morning of the third day she was given an enemata of water, one pint, which was returned slightly colored. Later, same day, an enemata of epsom salts, glycerine and water was given, a medium sized, partly formed movement resulting. She passed considerable gas and complained of griping pains in the abdomen. The wound was dressed February 6th, and stitches removed. A slight discharge of serum at the lower angle of the wound was noted which continued through the day. Patient's general condition at this time was excellent; continued to improve until the tenth day when she had four large thin stools which were controlled by paregoric and bismuth sub-nitrate.

In every case of emergency of this kind a rapid decision is necessary as to what is best, and this depends entirely upon the condition of the patient. To my mind only one of the two procedures is legitimate. If the patient is *in extremis* and plainly unable to withstand a prolonged operation the production of an artificial anus is the operation; but if, in the estimation of the operator, the condition justifies it, even to straining a point, the patient should have the benefit of the doubt and complete operation be performed as in this case.

Either terminal or lateral anastomosis by absorbable rings or plates is decidedly less feasible or surgical as a cœlotomy is made necessary from inability to return the repaired intestine through the small hernial opening. The risk in cœlotomy is in septisizing the cavity, which is rendered *nil* by working entirely through a slightly enlarged hernial opening.

DISCUSSION.

Dr. W. O. Roberts: Dr. Vance is to be congratulated upon the thoroughness with which the operation was done and the result obtained. I agree with him in what he says with reference to the management of these cases, viz: That where the case has gone so far as to lead us to believe the patient will not be able to stand a prolonged operative procedure, an artificial anus is the thing to do. That would be very easily accomplished and could be done very quickly under the circumstances. But where the condition warrants the procedure I believe the operation of resection certainly preferable. I have only done this operation once—resection in strangulated hernia—and that was in quite an old man at the city hospital. Dr. Rodman assisted in the operation. Patient did well for four days and I thought we were going to get a good result, but on the fifth day after the operation, the patient suddenly grew worse and died quickly. Post mortem revealed the fact that the line of union had given away and allowed the extravasation of fecal matter into the peritoneal cavity. Cases of strangulated hernia after gangrene has occurred, are usually in such condition that very little is to be accomplished by operative interference; the condition of the patient is such that they seldom rally. I thought I was going to have a case something similar to this yesterday. I was called to operate on a case of strangulated hernia that had been treated for colic for three or four days before the true nature of the trouble was discovered, but I was informed upon my arrival at the house that the patient and his friends had decided not to have any operative interference.

Bearing upon this question we ought to impress upon the general practitioner the great importance of earlier interference in

strangulated hernia. In some cases of this trouble, termed by Erichsen "active strangulation," gangrene takes place very quickly, only a few hours being required, whereas in what he terms "passive form of strangulation" it may be several days before the protruded portion becomes gangrenous. I saw a case not a great while ago, where a man had been treated for colic and strangulated hernia was not suspected until he was almost in collapse, still, under operative interference, he came out all right.

Dr. Vance did not state the condition of his patient's tongue after the operation.

Dr. A. M. Vance: The condition of the tongue was very good, with red furrows and red edge.

Dr. W. O. Roberts: It was probably some septic condition from the absorption of the products of putrifaction before Dr. Vance saw the patient, that caused the symptoms following the operation.

Dr. H. H. Grant: I think there are a good many reasons why Dr. Vance should congratulate himself that he used the method of operation employed, especially because he has a very satisfactory result. I notice in the last number of the *Annals of Surgery* the report of a successful case by an Italian surgeon, in which almost exactly the same operation was done under almost the same conditions. Femoral hernia in a woman fifty-four years of age, with end to end suture of the gut after resection of the gangrenous portion. I think in the progress of surgery at the present day, surgeons have become bolder, and have more or less overcome some of the prejudices which existed a few years ago with regard to the advisability of making an artificial anus after conditions of this kind, rather than do a complete operation. It seems to me if there is ever a time, however, in which it is advisable to make an artificial anus rather than do a resection, it would be in a femoral hernia after gangrene had taken place.

It is undoubtedly a very difficult thing to make this character of a resection, because, it not only takes a great deal of time to get the intestine prepared by this method, but the danger of sloughing of the gut is great, owing to the number of sutures interfering with the circulation; further, the proper approximation of the intestines is not always easily accomplished, and the probability of the suture giving way and consequent fecal fistula or extravasation of fecal matter into the cavity, is more likely after a condition of this kind than it would be if the operation were done by some of the other methods of anastomosis or resection. Besides when a gangrenous condition of the intestine is present, the general depression of the patient is very great.

For these reasons it seems to me to be the best time to make an artificial anus; or at least the time at which it would be less appropriate to subject the patient to the greater risk and the long operation necessary in the establishment of continuity of the bowel. Of course it would be practically impossible to accomplish intestinal anastomosis in a condition of this kind, without completing extension of the wound and opening the abdominal cavity if the sutured gut could not be returned, and under these conditions it would not be permissible, practically.

Where it is intended to complete the operation by intestinal anastomosis, either by the method of plates or by direct sutures as is more frequently practiced, I should certainly prefer it to the circular suturing as advised by Dr. Vance. I have been able to complete the operation of intestinal anastomosis without plates, in experiments upon animals, in eight minutes and am satisfied it can be done in less time by use of the clamp, a method which I have recently suggested. Using the method of direct suture Abbe claims the operation can be done in less than thirty minutes, and with competent assistance and special surgical skill perhaps this can be done. I should not favor the operation done by Dr. Vance under the circumstances unless there were strong evidences that the patient would likely rally; as under other conditions I do not think we should subject the patient to the complete operation, but should resort to the artificial anus. It seems to me that there is no legimate criticism that can be made of these cases, because a surgeon at the bedside is the best judge as to what should be done, and each case is a rule of itself. In the case operated upon by Dr. Vance, it is probable the majority of us would have decided as he did and given the patient the benefit of the doubt.

Dr. E. R. Palmer: This case recalls to

my mind one detailed by Prof. Bayless several years ago; a case of strangulated femoral hernia in a young woman who was so exceeding modest that she would not allow an examination. I notice Dr. Vance states that the extreme condition of his patient was due to the fact of her extreme modesty. In the case to which I refer, of course the patient died, and Prof. Bayless in reporting it, presented as a pathological specimen the external genitals removed post mortem with the hymen intact proving the unquestionable virginity of the woman, with the statement that he did so simply in justification of the fact of his non-interference in the case.

Dr. W. L. Rodman: I too wish to add my congratulations to Dr. Vance for his good work in this case. I do not believe there is such a thing as luck in intestinal work. I think he has stated the proposition very correctly and fairly—we are driven to one of two things in cases of this kind. I believe, however, in the majority of instances where the hernia has been strangulated for so long a time, and especially hernia of the femoral variety where the constriction is greater than in ingunial hernia, the condition of the patient will be such as to exclude resection. Such cases should have an artificial anus established. The operation of enterectomy is a very old one, recently given much attention by Ransohoff and others. It has never had a certain footing in surgery. The principal thing in the operation is which method of suture is best; and that seems to be the battle ground over which surgeons have fought more than any other. The majority of operators I think prefer the ordinary Lembert or the Czerny modification; the result in Dr. Vance's case proves the suture he used is as good as any other. Senn, who has done so much intestinal work, uses a suture something after the fashion of Jouberts, where after a section of gut has been removed the proximal is telescoped into the distal end.

Another feature of Dr. Vance's operation was having his two assistants grasp the two ends of the gut between their fingers, instead of using the ordinary clamp of Making. Over this clamp is rubber tubing to prevent injury to intestinal coats. I believe the clamp better than trusting the proximal and distal ends of the gut to two assistants, as by its use there will be less danger of extravasation of fecal matter into the peritoneal cavity. They also enable one to operate without trained assistants—sometimes a necessity.

Dr. W. C. Dugan: I think the suture Dr. Vance used can be applied more rapidly than any other. The way Dr. Vance has been using the suture is the way it is generally used by operators, simply passing it through the entire thickness of the gut rather than only down to the mucosa. I cannot help agreeing with Dr. Vance that it is simpler than the Lembert or the Lembert-Czerny, and its application requiring less time which is very important in such work.

In regard to the length of time, I think that certainly more than half the time consumed in Dr. Vance's operation (fifty-three minutes) was in cleansing. It seems to me that the operation as described by Dr. Vance, not counting the time necessary for preparation and cleansing, can be done in fifteen minutes. I did the operation, about one year ago in the city hospital, for gangrene following intestinal strangulation, in thirty-two minutes. But the patient was in profound collapse and died without reacting.

I notice Dr. Vance used the hernia knife for opening the sac. I think in these cases it is better and safer to cut down upon the strangulation from without, rather than with the hernia knife underneath.

Concerning the question of an artificial anus or resection in cases of this character, this is a matter that must be decided at the operating table and not by theory. A few years ago most operators would have condemned this operation and favored the artificial anus, but of late there is a strong disposition to go to the other extreme and restore the continuity at one sitting.

Dr. A. M. Vance: I have very little to say in closing. I believe the suture employed by me is the most secure for this form of anastomosis. I have had considerable experience with this modification of Wolfler's method in experiments upon animals; have resected intestine of the same dog twice, the last time fed the dog large quantities of meat and bread immediately after the operation; still there was evidently perfect union of the gut as the dog recovered promptly. In examining the gut for evidence of constriction, where

resection was done I found simply a mere line, perfect union having taken place with no decrease of the lumen.

Fifty-three minutes for this operation was quite a long time, but as Dr. Dugan says, it was from the time I commenced shaving the pudendum until the operation was completed—until the last external suture was applied. I do not think the actual intestinal work occupied more than twenty to twenty-five minutes. I have resected the intestine in a similar case where the constriction had existed eight days, the herina having been handled very roughly by a charlatan previous to my seeing the patient. In this case I am convinced that the operation of resection was a perfect success; however, the woman died a few days after the operation of sepsis from another cause.

As Dr. Grant has stated, I think the surgeon at the operating table is the best judge as to what should be done in these cases, and no definite rule can be formulated as to whether the mode of procedure should be resection or an artificial anus. I do not consider lateral anastomosis advisable in any case of this nature.

CONTINUED REPORT.

Dr. W. C. Dugan: About seven months ago I reported to this society a case of sarcoma of the kidney, exhibiting the specimen removed. One of the members at the time asked my opinion as to whether the child would live three months. I simply want to state that the patient is still living and there is no evidence of a return of the trouble.

INGUINAL HERNIA AND EPIDIDYMITIS IN A CHILD AGED SEVEN YEARS.

Dr. W. L. Rodman: I saw a case about two weeks ago that is unique so far as my experience goes. I was called about ten o'clock at night, to operate upon a case of strangulated hernia. I found the attending physician at the bedside of a little patient about seven years of age, with the history that he had had a left inguinal hernia for two years. Examining the patient I found the left half of the scrotum red and seemingly a little swollen. I made the diagnosis (although I have never seen a case before in a child under fifteen years of age) of epididymitis instead of strangulated hernia. Upon further examination I found a perfectly reducible inguinal hernia. The inflammation was allowed to subside, when I did a radical operation for cure of the hernia, because the patient was unable to wear a truss; he had tried three or four kinds of trusses none of which would retain the hernia. Then I thought there possibly was also a piece of omentum in the hernia which was irreducible; this turned out to be the case at the operation.

The reason I report the case is to bring forth discussion of epididymitis in a child so young as this. I believe it was due to irritation of the truss which was not well applied. I did Kocher's operation for radical cure and the case has progressed satisfactorily in every respect.

DISCUSSION.

Dr. H. H. Grant: I think it was probably a case of traumatic epididymitis.

Dr. A. M. Vance I have seen several times this condition in children, which I attributed to mal-application of the truss. The truss is sometimes applied over the scrotum rather than over the canal, producing bruising and irritation of the parts, and inflammation results.

Dr. W. O. Roberts: I saw this case with Dr. Rodman. It was a well-marked case of epididymitis, and I do not think there is any doubt but the pressure from the truss caused it. I know of nothing else which could have produced it, unless it be mumps. By the way, has any member ever seen an attack of mumps begin in the testicle primarily and effect the parotid gland secondarily?

I have seen two cases of epididymitis caused by mumps, where the parotid swelling was so slight as to be hardly noticeable. Strange to say in both cases the epididymitis was on the right side, same side as the mumps.

OPHTHALMIA NEONATORUM AND HYDROCELE; CHILD AGED 10 DAYS.

Dr. Wm. Cheatham: I saw a child some time ago with ophthalmia neonatorum, and the mother called my attention to the swollen condition of the scrotum. The child was only ten days old.

Dr. E. R. Palmer: I sent my assistant to see the child referred to by Dr. Cheatham, and he found a pro-

nounced hydrocele. The child suffered with severe ophthalmia neonatorum with a hydrocele, which was evidently due to mechanical causes connected with parturition. My advice was to let the scrotum alone. I do not see why mechanical causes should not produce epididymitis.

Concerning the metastasis of mumps, the man has not yet been born, and the scientist has not yet been found that can explain what that is. I have under observation now a medical student who had mumps as a boy; he had double mumps and double orchitis. He consulted me and wanted to know whether he would ever be able to propagate. He had two testicles each about the size of an ordinary almond. I gave him the same direction that I usually give in these cases, which, by the way, is a very simple one when you want to determine a man's virility; that is, to put a condom half on and have connection and bring the semen to me for examination. He followed my direction and we made a careful microscopical examination of the specimen of semen. In the whole mass of semen we found only one irregularly-shaped spermatazoon. I told the man that he had lost his virility and was absolutely unable to impregnate.

When a man has mumps on the right side it is very natural that the disease should develop in the testicle on the same side. As for mumps beginning in the testicle I have never heard of such a suggestion. I cannot conceive of anything more destructive of virility than mumps.

Dr. W. C. Dugan: I noticed some time ago in the *Medical News Gazette* where several articles, discussing the metastasis of mumps, maintained that there was no metastasis at all; that the testicle was one of the glands of the body, consequently was liable to partake of this trouble the same as the parotid gland, and that the inflammation of the parotid gland is but slightly modified by the complicating epididymitis. So since both glands are involved at the same time metastasis does not occur; that cases on record showed in the course of an epidemic of mumps there would be a certain per cent. of involvment of the testicle without any swelling of the parotid at all. Most writers on the subject report cases which prove beyond doubt the correctness of these clinical facts.

The case reported by Dr. Rodman calls to mind one that I saw about eighteen months ago with Drs. Cartledge and Douglas. There was great swelling of the right side of the scrotum, the skin was very red and it looked as though the testicle was acutely inflamed and about to suppurate, although the patient had all the symptoms of strangulated hernia. We cluded to introduce the aspirator needle to determine if it was the testicle, and it was found to be a strangulated direct inguinal hernia, having evidently existed only a few hours and yet the gut was found to be gangrenous. Operation was performed and the man died a few days afterward.

PERIOSTIAL SARCOMA OF THE JAW.

Dr. H. H. Grant: I have a case to report that I operated upon at the Children's Hospital two weeks ago, for what I looked upon as periostial sarcoma of the upper jaw, beginning in the alveolar process just underneath the nose, in a child ten years old. A year before, this tumor was about the size of an almond; I removed it with the assistance of Dr. Rodman, and in about eight months it returned. After examining it again, I recommended operation. The family desired that Dr. Vance should see it; he did so and agreed with me, and thought we perhaps could do as much by dissecting the tumor out, scraping the alveolar process with a curette and cauterizing it with a thermo-cautery, as we could in any other way. The situation of the growth was such as to involve both superior maxillary bones, both allæ were involved as high up as the vomer and nasal bones. After discussing the matter we decided that an incision could be made each side of the growth, the tumor carefully dissected out, and the bone scraped, which would at least result in temporary relief. It was clear that no other operation could be done that would promise any relief, without complete resection of the alveolar process of the superior maxillary bone, or at least beyond the articulation of the bones of the nose with the superior maxillary, badly disfiguring the face and mouth. In presenting the matter to the parents I told them that I thought it would be wiser to scrape away the growth as thoroughly as we could, rather than do

an operation which would certainly deform the child for life and, in the event that the growth returned, its complete removal then by the more severe operation would not be rendered any more difficult. After considering the matter they consented to having any operation done that we thought advisable. The conservative operation was done with the assistance of Dr. Vance, and the growth thoroughly scraped away. There was considerable hemorrhage which delayed the work very materially. It was finally completed and dressed, and the child has done very well since. Examination proves the trouble to be sarcoma of the round cell variety.

DISCUSSION.

DR A. M. VANCE: I agreed with Dr. Grant in this procedure. It seemed to me that the more severe operation, taking away almost the entire front of the face, resulting in much greater disfiguration without, in my opinion, any better chances of complete extirpation of the growth, was hardly advisable in this case and I believe that the operation as performed will result in relief which will be as permanent as by any other operation. It is probable that the growth will return, but it was removed with a great deal of thoroughness and in my opinion the conservative operation was the proper one in this case.

DR. W. O. ROBERTS: As I understood Dr. Grant, there was no involvement of the bone proper, consequently I do not see any necessity for removing a section of it. I think the doctor did everything that possibly could be done.

DR. W. C. DUGAN: If this growth was from the maxillary bone, it was very unusual, especially its location. I presume that it sprang from the intermediate or inter-maxillary portion, and that the maxillary proper was not involved. If such was its location I hardly think it advisable to remove the entire jaw as was thought by Dr. Grant.

DR. W. L. RODMAN: I saw this patient as Dr. Grant says, when he did the first operation, which I think was more than a year ago. The primary operation was very thoroughly done as is shown by the fact that the growth did not recur at once. I have a lingering suspicion that when a complete microscopical examination of this growth is made, it will not prove to be a pure round cell sarcoma. The round cell variety is the most malignant of all sarcomata, and I am strongly inclined to the opinion, from the apparent slowness of its development and from its situation, occurring either from the under surface of the periosteum or probably from the bone itself, that the growth will prove to have not only small round cells, but will have probably a good many giant and spindle cells. The history of the case indicates this form of sarcoma rather than the round cell variety.

DR. H. H. GRANT: With reference to the suggestion made by Dr. Roberts and referred to by Dr. Dugan: This growth was at least one and one-half inches over the alveolar process of the superior maxillary bone, and evidently sprang from it. Its point of origin and its evident growth was from the superior maxillary alveolar process, one and one-half inches in breadth—three-fourths of an inch each way from the central portion—and the removal of any portion of the superior maxillary bone less than three-fourths of an inch from the central portion would not have taken away the cancerous growth.

With respect to the characteristics mentioned by Dr. Rodman, it occurs to me that perhaps he is a little misled in the matter. While this operation was not performed until a year after the removal of the first growth, still the cancer recurred in five or six months after the first operation, and was considerably larger than when he assisted in its removal. Sarcomata that are not traumatic are usually much slower in their growth. Diagnosis of round cell sarcoma was made by the microscopist, still perhaps it is not very definitely settled.

SARCOMA OF THE JAW—IODOFORM POISONING.

DR. W. C. DUGAN: The morning after the last meeting of this society, I saw a patient from Glasgow, Ky., with a tumor of five weeks standing, on the left side of the jaw. There was some bulging on the face which gave him trouble; he had been treated by the family dentist with poultices, etc., for some time before a physician was called in. The doctor who saw the patient before being brought to this city, made diagnosis of sarcoma of the jaw. He was taken to St. Joseph's Infirmary

where I saw him the next morning after arrival, and confirmed the diagnosis made by his physician, advising removal of the growth at once. The tumor was of considerable size and seemed to be very virulent, consequently I recommended early operation. On the third day after being sent to the Infirmary operation was performed. The median incision was made and the flap turned back from the median line; the jaw was then sawn through and the orbit of the superior maxillary bone lifted out, and it was found that the tumor extended backwards involving the entire fossa. The first step in the operation was tracheotomy. I believe this should be the primary step in all operations of this character; it is very simple and not a very bloody operation.

A peculiar feature is that this patient had a typical case of iodoform poisoning; rapid pulse, high temperature, delirium, jerking, etc.,—one of the most marked cases of iodoform poisoning that I ever saw. The iodoform tampon was removed and the symptoms gradually subsided. He was up about the room on the fourth day after operation, having no pain at all. At the end of the second week he returned to his home feeling well, and we hoped by the operation he had secured a further lease on life. He had been home about four or five days when his physician wrote me that he did not like the way he was getting along; that it was returning along the line of the incision. I wrote him to have the patient come back to Louisville at once, and upon examination I found the tumor was as large as the end of your finger, evidently the same growth but there was none in the line of the incision in the soft palate. Dr. Cheatham saw the case and examined his nose. The growth rapidly extended to the soft and hard palate and all thought of further operative interference was abandoned. His physician is now using Pyoctonin both locally and injected, and I shall report the result.

Upon examination it proved to be small round cell sarcoma.

DISCUSSION.

Dr. A. M. Vance: I have heard of very few successful operations for malignant growth on the upper jaw. I agree with Dr. Grant in the case of alveolar sarcoma, it is almost impossible to prevent serious disfiguration when the growth involves the upper jaw, provided a complete operation is done. I have refused several times to operate on such cases; they would go away and be operated upon by others, finally returning to be treated until they died, in a few weeks or a few months. In the history of the lower jaw it is entirely different, there we can get rid of it and the patient is liable to go along for some time; but I have never known removal of a malignant growth of the upper jaw to do any good for any great length of time.

Dr. H. H. Grant: It occurs to me that the report Dr. Dugan gave of the operative steps in his case is as nearly the ideal method as could be described. I have seen the operation done very much as he suggested, with the exception that the chisel was used in the median line. I am disposed to favor conservatism in these cases, but of course whenever the sarcomatous growth has extended far enough to involve the soft parts of the bone, as in the antrum or in fact any of the medullary canals within the bone, then the likelihood of anything like a conservative operation in the immediate vicinity is almost out of the question, and as it is impossible to cut wide of such growths in the face it is oftener best to do nothing.

SQUAMOUS ECZEMA.

Dr. E. R. Palmer: I have had immediately subsequent to this very cold weather, four cases of face eruption in women of doubtful virtue that have been diagnosticated by doctors as syphilitic eruption—diagnosis probably based largely upon the fact that the women were of questionable virtue and therefore liable to this trouble. They came to me with considerable alarm and a great deal of anxiety and stated frankly to me that their doctor had said they had syphilis. They were all of the better class of such women and in each there was history of syphilis, they each had an eczema of the squamous variety, I believe superinduced by the cold weather and the soap they had been using. In two or three of the cases the back, arms and hands were involved. None of the cases were attended with enlargement of the lymphatic glands, nor anything that would point toward syphilis, yet in all four cases diagnosis had been positively made of syphilis. It simply goes to show

the tendency on the part of doctors to take any eruption on women of questionable virture to be syphilitic. I think we should be exceedingly careful in making diagnosis of syphilis based simply upon an eruption.

DISCUSSION.

Dr. A. M Vance: Do you not think that some of this eruption was due to cosmetics, etc. ?

Dr. E. R. Palmer: It may be, I had not thought of that. One of the patients came back to me with the eruption still on the back of her hands, saying she had gotten all right again until she disregarded my injunctions and bathed a great deal trying to keep clean, then the eruption came back. When this case first came to me the eruption on her face looked very much like pityriasis versicolor. We know that this affection does not affect the face, so of course it was out of the question.

THE WESTERN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Annual Meeting: Kansas City, Missouri, December, 27th, 1892.

[OFFICIAL REPORT.]

Dr. T. J. Shreves, Des Moines, Ia., read a paper on "Prolapsus Vaginal."

DISCUSSION.

Dr. Todd: The paper of Dr. Shreves is very suggestive and deserves more consideration than time will permit of.

Relaxation or prolapsus of the vaginal wall may be due to a variety of circumstances. It may result from an injury to the perineum—an injury to the deeper perineal structures or to the orifice of the vagina—in which the posterior vaginal wall is weakened and the uterus fails to receive that support that the vaginal wall gives it and, hence, is very liable to undergo some form of displacement.

All relaxations of the vagina are not of traumatic origin by any means, although the perineum may be torn. It is possible that injury to some other part has taken place during parturition; and we very well know that any injury to the vaginal wall or perineum, or to any of the parts concerned in the process of parturition, interferes very materially with the process of labor. An injury of this kind although of slight character—a tear, somewhere we will say, in the vaginal wall—results in the impeding of involution. That is to say, a physiological condition cannot go *pari passu* with a pathological condition. The pathological condition prevents the physiological changes which are to follow. So it happens that with almost any kind of injury during parturition we have an arrest of involution, or a preventing of the involution of the vagina and of the uterus. Then again, we have a certain class of individuals in which there is the strongest tendency to conditions of this sort. They are of flabby muscle; there is a flaccid state of the entire organism. It is, perhaps, an inheritance for, as they say, it runs in families whose members are particularly prone to affections of the mucous membranes. They may not have tuberculosis of the lungs, but they are liable to have bronchial discharges, and catarrhal conditions of the stomach and bowel, of the urinary tract and of the vagina and uterus. They have leucorrhœa without any known cause; the mother had it and the grandmother had it. It is a constitutional condition. In these cases, where the condition is congenital, that relaxed condition of the vagina can be produced by leucorrhœa—as these cases are very apt to be attended by leucorrhœa, and are not apt to be attended by uterine displacements. They are not *apt* to be—hardly ever, if at all, in primipara, but occasionally happening in multipara. If a woman has borne many children she is very apt to have a relaxed state of the vaginal walls. Ordinarily she does not have any uterine displacement unless there has been a laceration. Those who make many examinations will find every degree of relaxed vaginal walls—every degree of tonicity. In some the muscular fibers are always in a state of tension; on the other hand, in

this class of cases I am speaking of, they are in a constant state of relaxation.

Now treatment for the latter sort of trouble isn't to be done by mechanical means. It is true that the vagina can be so relaxed as to cause cystocele or rectocele with prolapsus of the vaginal wall or prolapsus of the bladder, where one might have occasion to use a mechanical support to keep the uterus up and the vaginal wall on a stretch, because the uterus is very likely to descend in such cases. But in that class the vice is constitutional and the remedy is to give tone to the entire individual, by the use of ergot, arsenious acid or some form of strychnia or nux vomica, or like drugs.

If I remember correctly, in Dr. Shreves' case there was an existing pregnancy of about two and a half months, and that this relaxed condition of the vagina pre-existed. That, of course, favored some displacement of the uterus because the relaxed vaginal wall allows the uterus to fall back. Dr. Shreves was very fortunate in being able to come out as well as he did. It doesn't always happen so. I remember a case that happened some little time ago, in the hands of one of our prominent physicians who called me in consultation. The lady was advanced in gestation about two and a half months if I recollect right. She was the wife of one of our ministers here. A romping brother suddenly threw himself into her lap and the uterus was forced backwards by the violence done by the child. The doctor was called in and attempted reduction by the ordinary methods but failed. Twenty-one hours had elapsed and in the meantime retroversion had taken place. Although chloroform was given, an effort made to replace the uterus was without result. Placing her in the knee-chest position, continued efforts were made until the woman had become so fatigued that we were compelled to abandon the endeavor for the night—it was then late in the evening. The next morning we again attempted to restore the uterus to its place by all the methods known; we used pressure upon the organ but it was utterly immovable. The uterus had not been displaced more than thirty-six or forty-eight hours. Well, the woman became fatigued and there was considerable tenderness, so I proposed to the doctor in attendance that we introduce a sound into the uterine cavity, which we did and the woman aborted. Within ten or twelve hours afterwards the uterus had begun to restore itself, and when I returned again, the woman was all right.

But in Dr. Shreves' case, the great relaxation and the great flaccidity of the wall allowed the organ to be replaced just as easily as it got out of place. It went out of place without any violence and was restored without any violence or difficulty.

I hardly need say that the paper of Dr. Shreves, while it is suggestive, covers only a small portion of the complications that we are apt to find in such cases—not those present, but those which may follow. The time comes, in all cases where the vaginal wall is relaxed, that something must be done else prolapsus or some other displacement of the uterus will take place.

If the individual be one of that class I referred to, we should aim to give tone to the general system as well as use local treatment. I am in the habit of resorting to a local support for the vaginal wall until the parts have been restored to their normal condition. One valuable means of overcoming this relaxed condition of the vaginal wall, which so much favors uterine displacements, is found in the application on wool of the fluid extract of ergot in glycerine, used as a pessary. Glycerine has a wonderful power in bringing about compression and tonicity of the parts. Those who use this application will soon discover how difficult, after a few applications, it is to introduce the finger into the vagina. If it is kept up for a considerable time, I have no doubt that permanent tonicity of the parts will be gained.

Dr. Price: Injuries in parturition predisposing to the complications under consideration, are very instructive.

A gentleman has dropped me a note asking whether I use anæsthetics in obstetrics. If you will permit me a word about this, I will answer simply "very rarely." My reasons are as follows: The use of anæsthetics in obstetrics favors a world of mischief on the part of the obstetrician. Go to half-a-dozen cases of women in active labor, three of them multiparæ and three of them primiparæ, and none of you are prepared to say that any of them will be terminated in an hour or three hours or six hours. I have

before now, after examining a woman carefully, felt that I could go off and do one or two sections and come back in time; but after examining her during pain and waiting a few moments, I discover that it will, in all probability, be over in half an hour. At other times I have gone off and done one or two sections, and come back in good time.

As to the use of anæsthetics in private obstetrical cases, many interesting stories are told about the use of forceps. One gentleman, saluting another with his bag, —"Forceps case?"—"Yes; reed bird for supper." When you give your anæsthetic you are about to make up your mind to terminate that labor. Now take a primipara and give her an anæsthetic; wait an hour and a half; you prolong your anæsthesia and apply your forceps without knowing to what extent the os is dilated or dilatable, and you split the cervix and perineum that has neither softened nor dilated and pull a head with a least diameter of four inches, over the pelvic floor. That has a direct bearing on the subject under discussion. You burst asunder the ischio-perineal fascias or muscles, or more, in advance of that child's head and predispose the woman to a capacious and relaxed outlet, with cystocele and recto-vaginocele following in most of cases. So I unhesitatingly condemn the indiscriminate, injurious and foolish use of anæsthetics. I know perfectly well from large experience in gynecology and repairing of injuries to the soft parts incident to parturition, that anæsthetics have been at the bottom of much of the post-partum trouble.

Another cause is the early and foolish use of ergot. In mining districts among women attended largely by midwives, the labor begins with ergot, is followed by ergot and finished with ergot, and you will find most mutilations among women in mining districts. Wherever you find midwives controlling midwifery, you will find most frightful mutilations. I have found—and I have given the matter no small amount of study and consideration—for instance in consultation, the doctor will tell me she has been in labor since five o'clock yesterday: and after examining a woman, I tell him to go home, see twelve patients and come back. But he wants to terminate the labor. The patient is walking the floor and pacing from side to side. The cervix is fairly well dilated, the descent isn't very well marked notwithstanding it is a primipara. I tell him: "Go home and get something to eat, *get your buggy* and drive your practice for three hours and then stop in." That is the last I hear of him. Now I could easily terminate that labor with the forceps, but I should look upon it as a criminal assault, crippling that woman for life. There isn't a single indication—the membranes are intact, the cervix is not dilated, the parts are soft and moist, she is bearing it very well, there is no constitutional disturbance whatever and it is simply a matter of time. Physicians or obstetricians must learn to wait; they must cultivate that happy grace—patience.

Now, sir, with regard to prolapsus or relaxation—it is a very bad term; it does not mean much—the doctor's paper is interesting and instructive, and I agree with him wholly except so far as the injuries of the pelvic floor are concerned—and I don't know that I differ with him there—in predisposing to these protrusions or prolapses of the soft parts, the anterior and posterior vaginal walls. He has beautifully called our attention to the class of cases that are strongly predisposed. We find some young women of relaxed fibre—unmarried women, never having borne a child—with the cervix protruding at the vulva, and we have no solution for the condition except that it is an hereditary tendency and predisposition. Nor have we very much in the way of treatment for the relief of such a patient.

But in those cases of cysto-, and recto-vaginocele, following retroversion and retroflexion, resulting from injuries incident to parturition, very exceptionally do we find a protrusion of this character without finding the ischio-perineal fascias—the pelvic floor or diaphragm, if you please—broken down. In short, if you plant your finger in the right or the left sulcus, you will find nothing resisting in the recto-vaginal region, not even a levator ani. If you plant your finger in the right sulcus and pull it down you may feel some fibres of the right levator ani resisting your finger, but on the left side you will rarely find anything. If you will introduce your finger into the bowel and press out through the vulva you will find that you have nothing but the rectal and

vaginal mucous membranes. The ischio-perineal facias and muscles are all gone. Everything had been crowded up in advance of a child's head and ruptured *post-vaginam*. On the left side you will generally find the injuries the most marked.

The signs of the condition are notable: The patient will sit down and cross her legs or she will stand with her legs crossed, and if you ask her why she does it, she will tell you that it gives her comfort—gives her a sense of support. She loses that sensation of everything coming down and out or protruding from her, by crossing her limbs. If you make compression laterally, posterior to the vulva and anterior to the anus, and push up the perineum, and ask if that gives relief she will say—yes. Again, if you ask if she has a sense of defecating through the vagina when constipated she will say—yes. The resistance of the walls of the vagina is even less than that of the sphincter, the rectocele rolls out before the sphincter yields and thus produces sensations of defecation through the vagina.

Now place fingers in the right and the left sulcus and pass them under the rami of the ischii—and all these cases are about alike except those congenital cases and those of virgins alluded to—and trace the evolution. It sums up a loss of support. Notwithstanding we have had many discussions and much written about the support being from above and about the schio-utero-sacral ligaments and broad ligaments and all that sort of thing, I am not willing to admit that the supports are not largely from below. Take a whole school of vigorous, healthy spinsters who are taking an active interest in domestic duties and social life, and none of them have a descent or prolapsus. But some of them get married, the pelvic floor is broken down and they have a prolapsus. Surely that condition of affairs follows some injury to the pelvic floor that did not antedate marriage. Emmet discusses fully these injuries to the pelvic floor and also discusses the utero-sacral ligaments and the broad ligaments. The broad ligaments are simply reflexions of the peritoneum, and I don't think much of the broad ligaments as I find them, for the support of the uterus.

The doctor called attention to defective involution. Unless the cycle of reproduction is complete, some mischief lurks. The parturition should be normal and the lactation as well must be normal. At present, there is a tendency to bottle every baby, and I sometimes wonder why the good Lord does not send a barrel of soothing syrup and a bottle with the baby. In all such cases there must be defective involution. There is a relaxed pelvic floor and there is a large and heavy uterus; it descends, goes into the hollow of the sacrum and becomes retroposed and retroverted or retroflexed. With this descensus a deflection follows and there is an obstruction to the return of the veinous blood. The uterus becomes engorged and heavier, and this increases the descensus until it becomes a procidentia.

Now if you will redress that uterus, place it at a high circulation level and unload it of its blood, you will, in twenty-four or thirty-six hours, find that you will have a very much smaller and lighter organ. That is just what comes of the knee-chest position and the cotton and glycerine dressing dwelt upon. We have at our command that treatment, that redressing, for a large and retroflexed or retroverted uterus with descensus. Then follow that with whatever you like; but so far as my own work is concerned, I would insist on restoring the supports by one of Emmet's beautiful methods of plastic work—the perineal operation in injuries to the pelvic floor.

You can bring up the pelvic floor and make a woman about as physically virginal as it is possible to make her. And I know from a long experience and the use of every conceivable effort to repair those injuires, that there is nothing in plastic surgery that compares with the methods of Emmet in all these lesions. I simply look upon him as the "father" of plastic work.

One theory in regard to the discomfort that is curious and interesting, belongs to an Indianapolis man, and is that the peculiar discomfort suffered in locomotion or standing is due to a loss of co-ordination. For instance if you will make a woman contract her sphincter, if you will watch the action of the pelvic muscles in nausea and vomiting under ether, you will see there is a condition of asymmetry in the contraction of those muscles. Her discomfort is due largely to a loss of co-ordination in her pelvic floor and pelvic muscles, something like that loss of co-ordination

of the fore-arm in an injury to the flexors or extensors. This Indianapolis man has given a very pleasing solution. I have forgotton his name.

Dr. Shreves: To my mind there was no other alternative than to make a diagnosis of laceration of the superior portion of the vaginal tract from the cervix, from the fact that I found presenting a tumor, soft, yielding, flabby, protruding beyond the vulva at least two inches; that on introducing the index finger I found complete retroversion, with the fundus resting on the rectum and the cervix pointing against the pubis making at least four inches between the point of the cervix and the lower portion of this presenting tumor; and that in the center of this presenting tumor was as perfect an external os as ever I discovered through a speculum. I had no means satisfactory to my mind, of making any other diagnosis than that the superior portion of the vaginal tract had been torn loose from the cervix and simply inverted—turned inside out—carrying the external os with it. As a matter of fact we understand that the point of the cervix is covered with a mucous membrane, and that mucous membrane is reflected up on the side of the cervix and then back again and, passing downward, is inserted into the vaginal walls. Well, my philosophy was that this was torn loose, that the vulva was simply turned inside out, the external os presenting two inches beyond the vulva, and on further examinations I saw no reason to change my diagnosis.

It was the first case of the kind that I ever had any experience with, and I have not been able to find that a like case has been reported. Consequently I brought a report of the case to this society, feeling anxious that the members present should discuss it very fully and convince me, if possible, that I was in error in diagnosis. I am satisfied that all men are liable to fail at times; but in this case I didn't understand how it was possible to make a mistake in diagnosis when there was at least four inches intervening between the external os and the point of the cervix. The case has fully recovered.

When I put back the displaced uterus the second time, I passed my finger around the point of the cervix, forcing the vaginal tube up so as to pass over the neck, and retained it in that position by tamponing the vagina with wool. As a matter of course, when all that followed took place, a retroversion occurred, and when I replaced it the second time I had to go through the procedure precisely as I did in the first instance and retain the vagina pressed up firmly on the point of the cer-vix.

A Shrewd Servant.

An exchange prints the following: An incident which happened a few days ago in this city shows the servant girls are about as sharp as the average run of people. Mrs. —— is a married woman who is evidently unable to keep a servant girl more than six weeks. She is overbearing and tyrannical, and makes it intensely hot for the domestic. A few days ago, so the neighbors say, her servant came in and said, as her month was up, she would take her money and go. "My gracious, Maggie, you must stay a few weeks longer. You know that I expect to be sick soon. I will give you ten dollars more a month." "I can't stay ma'am. I have engaged another place." So the hard-hearted Maggie packed her trunk, and an hour later, as she was leaving, she said: "If you please ma'am, I hope the boy will be a fine one." "Why are you so positive about it being a boy?" "Wy sure ma'am, no girl would stay with you *nine months*."

After six months of widowhood, Bridget consented again to enter the married state. A few weeks after she was led to the altar, her former mistress met her on the street, dressed in deepest mourning.

"Why, Bridget!" she exclaimed, "for whom are you in black?"

"For poor Tim, me furrst husband, mum. When he died I was that poor I could'nt, but I said if ever I could I would, and me new man, Mike, is as ginerous as a Lord."

"Do you believe in the transmigration of souls?"

"Not I. And you?"

"I am convinced of it."

"Indeed! Then what were you once upon a time?"

"An ass."

"When?"

"When I lent you that sovereign!"

CORRESPONDENCE.

NEW YORK LETTER.*

In a recent clinical lecture, while discussing the question of prognosis in chronic valvular disease of the heart, Dr. A. A. Smith, Professor of Practice in the Bellevue Hospital Medical College, made some statements in regard to the effects of the tobacco habit in heart disease, which varied considerably from the teachings of most authors on this point. While admitting the evil of the use of tobacco to a certain extent, he said that it was not always wise to make a patient with any chronic disease, particularly cardiac disease, stop the tobacco habit. The effects on the nervous system of a sudden change from a habit that has been long continued is often more deleterious to the patient than would be the continuance of the habit. There are many cases of heart disease met with in private practice, in patients who are habitual smokers, in which it is noticed that palpitation, dyspnœa, and præcordial distress are excited upon the slightest exertion when the use of tobacco has been shut off, while during the continuance of the habit compensation was well kept and the patient experienced no particularly ill effects from his valvular lesion.

Dr. Smith referred to a young physician whom he knew ten years ago, who had grave valvular lesions and in whose case the prognosis as to time was but a few years; the young man thought that he would take all the comfort he could while he lived, so began a rather immoderate use of tobacco; he is living yet and his prospects are more brilliant than they were ten years ago. Another case was mentioned of a cigar-maker who was told that he must cease the use of tobacco, as he had a double valvular lesion; the man stopped the habit altogether for two weeks, during which time he suffered so from dyspnœa and palpitation that he began the habit again with a relief of these symptoms. Dr. Smith said that he now has under observation two Russian ladies who contracted the cigarette habit in their native country; both have organic heart disease; as long as they continue the cigarette habit they experience no severe results from their heart disease but, as soon as they attempt to break away from the habit symptoms of loss of compensation and of beginning predominant dilatation are observed. The professor did not wish to convey the idea that the cases mentioned above were typical ones, or that the use of tobacco was justifiable in all cases of heart disease, or even in the majority of them, but simply wished to show that tobacco was not contra-indicated in all cases, as well as that a bad prognosis is not to be made in a patient with valvular lesions on the ground that he is addicted to the use of tobacco.

* * *

A couple of cases of septic infection following the very slight operation of removing corns were recently reported at a meeting at the Academy of Medicine. One of the patients was a young man who had pared his own corns, using a common knife, and of course paying no heed to aseptic precautions. In a few days fever and symptoms of septic infection set in, with great pain and swelling in one of the shoulder joints. The patient was a rheumatic and the symptoms were thought to be of a rheumatic nature; salycilates were given and anti-rheumatic treatment carried out, but failed to relieve the symptoms. The swelling in the shoulder continued to increase; an incision was made and a large amount of pus evacuated. The patient was seriously ill for two months.

The other patient was an elderly lady who had several corns removed by a chiropodist. In a few days fever, muscular pains, and marked nervous prostration set in. A swelling soon developed at the sight of a contused wound on the arm; this swelling was opened and a large amount of thin, dark-colored pus turned out; pus had extravasated between the muscular planes and in the subcutaneous cellular tissue of the arm; the patient gradually grew weaker and in ten days died.

*Special Correspondent to THE MEDICAL AND SURGICAL REPORTER.

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SATURDAY, MARCH 25TH, 1893.

EDITORIAL.

PRACTICAL CLEANLINESS.

Abdominal surgery has about settled the question as to the necessity of chemical solutions, or so-called germicides, in practical surgery. Some eminent general surgeons, who still corrode their hands with bichloride and like reagents, admit it is done mostly to satisfy Mrs. Grundy. The abdominal surgeons who are now achieving the best results use nothing but boiled clean water in their work. This greatly simplifies matters.

Theories are worthless when contradicted by every day experience. We may marvel much over the wonderful array of bugs and bug-ptomaines turned loose upon the surgeon and his patient by the tireless German microscopist; but, so long as the application of hot water alone gives such good results as it does, we need not consider the desirability of cornering the market in any of the many bug-poisons foisted upon us by the germ theory.

It is a great relief to the accomplished and experienced surgeon as well as to the learner just on the threshold of the art, to be able to cut loose from the slavery of *antiseptics* and to adhere only to the gospel of cleanliness.

Of course, one can go too far in the protest against a system deemed false and cumbersome. When Lawson Tait held his silkworm gut sutures in his mouth while making a perineorraphy merely to show the Germans his contempt for their germ theory and its attendant germicides, he violated a canon of *asepsis* as well as of *antisepsis* and laid himself open to just criticism.

A system often becomes top-heavy and falls by its own weight. The industry with which the biologist is constantly adding species to the number of pus-producing and infecting micro-organisms all ready studied, begins to set one thinking that, when these little enemies of mankind exist in such countless myriads of an infinite number of species all ready to pounce upon the helpless and injured, creation is a failure. Pope's well known verse should read "A bugless man's the noblest work of God."

In fact the endless invention and multi-

plication of pathogenic microbes becomes practically a strong *reductio ad absurdum* argument for their harmfulness.

It is laid down as a rule in our text books that pus can exist only in the presence of moisture, heat and bacteria. But a fourth factor is equally necessary; that is, necrotic or devitalized tissue. Hence bacteria are looked upon by some scientists as mere scavengers of the system, helping to get rid of material destroyed by some process either chemical or traumatic. That they become harmful only when their products become so abundant as to furnish new pabulum for their own sustenance, by overwhelming vital processes in tissues rendered less resistant by causes foreign to germs of any kind.

A rule of conduct or a method may be essentially correct although founded on, or originating in, a false theory. This is conceded of the routine of antiseptics. Instead of destroying matter inimical to life it has merely washed it away by the fluid holding the germicides in solution.

Thus out of the chaos of Antiseptics has gradually evolved the simplicity of Asepsis. The idea now obtains of removing the infinitesimal sources of sepsis with soap and water instead of poisoning them and the patient alike with chemicals.

TRANSLATIONS.

DEATH IN INFANTS FROM HYPERTROPHY OF THE THYMUS.†

Mussy (*La Mèd. Moderne*, January 21, 1893) says that simple hypertrophy of the thymus is rare. Most of the cases of inflammation of that organ are due to hyperemia or to hemorrhage of the size of a pin's head, disseminated through the organ and originating from injury during labor. True inflammation is denied by most of the authors. Friedleben observed it once in a young man eighteen years of age in whom the thymus gland persisted becoming of an enormous size filling the mediastinum, adhering to the pericardium and causing death by suffocation. Syphilis may be a cause of increase in size. Dubois in 1850, noted four observations of purulent thymus in syphilitic children. This opinion, accepted by Depaul, Henoch, Viederhofen, was opposed by Virchow, who claimed that during fetal life this organ contained a milky juice entirely analogous to pus. Other authors, Depaul, Bednar, have cited cases in which they have noted cysts containing fluid, yellow, and of the dimension of a bean, which they have regarded as softened gummata. However it may be, syphilitic lesions are rare, since Furth in 200 autopsies found them only seven times, and Parrot even denies their existence completely.

Primary tuberculosis of the thymus has never been demonstrated; secondary tuberculosis although rare, has been recognized several times following invasion of the ganglia of the mediastinum. As to malignant tumors, experience is far from proving the assertion of Birsch-Hirschfeld, who, in 1877, claimed that tumors of the mediastinum, in the form of soft lymphosarcomata, had for their point of origin the thymus gland. Friedleben does not cite any case, and since his work, but two or three well authenticated cases have been recorded in medical literature.

As to whether hypertrophy of the thymus, the causes of which are still surrounded by obscurity, is the origin of the attacks of suffocation known under the name of spasm of the glottis or thymic asthma and which may occasion death, is a much disputed question. In the eighteenth century the thymus had been charged with producing asthma in infants. But it was Kopp who first in 1830, embodied this doctrine. This opinion was quickly attacked in Germany and Italy by numerous writers: Pagenstecher, Wunderlich, Hecker, to cite only the most important.

†Translated for THE MEDICAL AND SURGICAL REPORTER by W. A. N. Dorland, M. D.

In 1855, Hirsch advanced anew this hypothesis, opposed strongly by Fingerhutt, Canstatt, Marsh, who took sides with the view of the nervous origin. In France, the question was but little agitated. Blache, Valleix, Trousseau, all inclining rather towards eclampsia, quickly withdrew when the thesis of Herard appeared in 1847. This eminent physician concluded his observations thus: "The thymus is an organ whose volume and weight are very variable in children in good health—this is dependent upon the constitution of the child. In the so-called thymic asthma the variations of the volume correspond to variations in the constitution, and have nothing to do with the production of the attacks of suffocation." Rilliet and Barthey also defended the convulsive origin. More recently Weit has returned to the view of thymic asthma, and he has been followed by a certain number of physicians, in Germany especially; Schœle of Dantzig, Soltmann of Breslau, Pott of Halle, Fleischmann, Recklingausen, Jacobi of New York, etc.

Jacobi, in 150 cases of glottic spasm, noted ten deaths; Soltmann in 425 cases (in ten years), forty-eight deaths; Pott, in 176 cases, fifteen deaths; on an average ten to twelve to the hundred. In these fatal cases about the third of the infants succumbed suddenly. It may be seen therefore, that the prognosis of this affection is far from being good, and it becomes important to avert the possible fatal issue.

Pott, in his memoir published in 1892, gave the results of the autopsies which he had made upon eight children who had died suddenly in an attack of suffocation. The thymus weighed on an average 30 grammes; in one case 40 grammes; that is three times the normal weight. The dimensions were as follows: Length, seven centimeters; breadth, four centimeters; thickness, two centimeters. Moreover, adhesions existed to the pericardium, near to its reflexion on to the large vessels of the neck. Beyond doubt, in this case, there was a marked hypertrophy of the thymus gland; on the other hand the absence of any lesion in the other organs prevented the ascribing to such cause the death of the child.

In all of these cases, here is, from a clinical point of view, how the patient most usually acts: On placing a spoon in the mouth of the child to examine the throat, it suddenly throws the head back, respires violently, the eyes roll upward, and the pupils are extremely dilated. The lips are cyanosed and swollen as is the rest of the visage. The tongue is pressed against the jaws, bloated, cyanotic and touching the palate. The veins of the neck turgid, the fists are closed, containing the thumb strongly flexed, the forearm is contracted and pronated. The lower extremities are extended, the toes flexed, and the verbetral column slightly curved. Some fibrillary motions in the muscles of the face may be noted, some inspiratory movements that do not suffice to cause the air to enter into the respiratory passages. Then, suddenly, the contracture disappears, the visage pales, the tongue and the lips become livid, and in one or two minutes the infant becomes a corpse. Towards the end of the attack the urine and feces escape, the murmurs of the heart are scarcely audible and the pulse scarcely sensible, and the corneal and pharyngeal reflexes are abolished.

Artificial respiration, tracheotomy, electrization of the recurrent nerves have never succeeded in reëstablishing the vital functions. How does the hypertrophied thymus act in the production of this fatal accident? Is this organ capable of flattening the trachea and so deforming it as to prevent the entrance of any air into it? It is very difficult to adopt an opinion that may stand the test. Scheele has demonstrated experimentally that a weight of 1000 grammes is necessary to produce a complete flattening of an infant's trachea. Here is a more probable hypothesis than that death is due to pressure of the large organ upon the trachea. The distance that separates the sternal fourchette from the vertebral column in an infant is on an average two centimeters, and there is also the thickness that an hypertrophied thymus may attain. In this closed space the enlarged gland forms adhesions with the pericardium, the large vessels and the trachea. Coming in contact with the latter, the two organs unite, and a fatty degeneration of the artificial wall takes place. Little by little the trachea softens, then suddenly, under the influence of a sharp flexion of the head, the trachea is flattened, completely obliterated and the asphyxia commences with

the nervous phenomena already cited.

The thymic tumor may also compress the recurrent nerves, as any other tumor of the mediastinum, and occasion a glottic spasm; it may also give its weight and adhesions to the heart and the large vessels; exercise by compression upon the ventricle or upon the pulmonary artery a sort of cardiac paralysis of which mention has been made in describing the crisis.

The thymus gland, therefore, acts as do tubercular glands in the child by compressing the trachea little by little, finishing by occluding it, by compressing the recurrent nerves, the heart, the great vessels, and becomes for these two reasons (an obstacle to the entrance of air and the circulation of the blood) the point of departure of excitation of the centers and nervous phenomena which are dependent upon them. To conclude, as Sanné has said, there exists, in addition to the eclamptic form of spasm of the glottis, a compression form due to hypertrophy of the thymus, and we may add that in the latter form more especially does sudden death follow the attack of suffocation.

Bi-Lateral Oophorectomy for the Cure of Osteomalacia.*

E. Kummer reports the following case: Patient, aged 39, had given birth to seven children without instrumental aid; the last birth was three years ago. The beginning of the disease was eight years previous, first appearing with pains in the extremities. Since 1886 increasing deformity in the lower extremities. Four months ago irregular and profuse menstruation. Pelvic measurement between the spines 18¾ cm., the crista 26, the trochanter 24.5, the diagonal conjugate 7.

Oöphorectomy performed February 9, 1891. Recovery with entire disappearance of former pains and complete arrest of the disease. So far thirty-eight cases have been operated for osteomalacia, with but one death and a complete arrest of the disease in all. In regard to the history of this disease, the author coincides with Fehling in that he believes that the nervous system of the genital organs influences the disease of the bones.—(*Revue de Med., de la Luisse*, Rom. xii. 7-92.)

* Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

The Treatment of Retention of Cysts of the Tubes by Dilatation of the Uterus.*

A. Zabolotsky reports in an inaugural dissertation, (Petersburg, 1892), observations upon twenty-six patients on whom the diagnosis was made of the retention cysts, in the Clinic of Prof. Slarveansky, of Petersburg, who were treated by dilatation of the uterus. The means for dilatation were laminaria, tupulo or sponge tents, tampons of villiet and the bougies of Hagar.

Zabolotsky believes that laminaria tents produce the best results for dilatation. That the dilatation of the uterus is usually followed by emptying of the retention cysts. In only four out of the twenty-six cases he noticed an increase of temperature. The usual time for this treatment is thirteen days, and the shortest is six days; the patient is compelled to remain in bed throughout the time. Of the twenty-six, ten had cysts on both sides; seventeen were thoroughly cured; three had a return, were treated in the same manner and were discharged well. In five the contraction of the cysts could be felt and the patients considered themselves better. Sixteen of these patients still come to the clinic.—*Schmidt's Jahrb.* Bd. 237, No 1.

The Destiny of a Ligature Used in Ovariotomy after 5½ Years.*

N. Komarewski reports under this head that a patient in whom ovariotomy had been performed 5½ years before and who died during a recent confinement, a microscopical examination of the stump showed the complete absorption or disappearance of the silk ligature.—*Chir. Annalen.*, 1892. Bd. ii., p. 333.

Invisible Color.—Professor—Microscopical investigations lead us to believe that there are colors too delicate to be discerned by the human eye, invisible colors, we may call them.

Student—I know the name of one of them, sir.

Professor (surprised)—Indeed! What is it?

Student—Blind man's buff.—*Texas Sift.*

*Translated for The Medical and Surgical Reporter, by Marie B. Werner, M. D.

BACTERIOLOGICAL NOTES.

The Distribution of the Bacilli of Diphtheria in the Human Body.

The opinion has been generally entertained heretofore, that the bacilli of diphtheria were localized in the false membrane characteristic of the disease.

Frosch (*Zeit. f. Hygiene* xiii, 1893, pp. 49) gives the results of his investigation of fifteen fatal cases of diphtheria. In five of these the specific bacteria were not found in the internal organs, in the other ten the diphtheria bacilli were isolated from the blood and various organs. The bacteriological examinations were made as soon as possible after the death of the patient. The ordinary method of making agar plates was employed. In some of the cases the bacilli were unusually distributed through the body, as indicated by their isolation from the blood, spleen, liver, kidneys, cervical and bronchial lymphatic glands, lung (when hepatized) pericardial and pleuritic effusion, and the brain. In a few cases they appeared in the cultures from spleen or kidneys only. Babes, Kolisko and Paltauf, and Spronck are the only observers who have made similar observations in the past. The results obtained by Frosch bring out with clearness a very important fact in the pathology of diphtheria.

The Preparation of Haffkine's Anti-Cholera Vaccines.

According to Haffkine's method protection against cholera is brought about by acclimatising the system first to a weak virus and afterwards to a strong cholera poison. The materials used in bringing about such a condition in the animal body, and the method of preparing the same are described by Wright in a recent (Feb. 4, 1893) number of the *British Med. Journal.* The vaccines consist of emulsions of attenuated and of exalted cholera cultures. They may be of two kinds. An emulsion (1), of the living cholera bacilli (living vaccines) or, (2), of cholera bacilli that have been killed by the action of dilute carbolic acid (carbolized vaccines). The living vaccines possess a greater vaccinating power, but the carbolized vaccines have the advantage in being perfectly safe to handle or to leave about. They do not appear to be impaired by keeping, and could be sent out from some central place where they could be made in quantity.

The attenuated cultures are obtained by M. Haffkine by cultivating the cholera bacillus in media which are continually aerated at a temperature of 39° C. When the cholera bacilli have been grown under these unfavorable conditions for some time, they become so weakened that they cause a local œdema instead of necrosis when they are injected into the subcutaneous tissue of a guinea-pig. The attenuated germs can be cultivated indefinitely in agar tubes without regaining any of their lost virulence. The "exhalted" vaccines are obtained by growing the cholera bacilli in the peritoneal cavities of a series of guinea-pigs As each guinea-pig dies the fluid which is found in the peritoneal cavity is inoculated into a second pig and so on until the virus has passed through a series of twenty or thirty animals. During such a long series it is very difficult to avoid contamination of the virus unless the strictest care is exercised. The cholera bacilli are not sufficiently virulent when isolated from the intestinal discharge of cholera patients.

The emulsions are prepared from the attenuated and "exhalted" cholera bacteria, by mixing the surface growth on agar cultures one day old, with sterilized bouillon, two or three ccm. of liquid for each agar culture. The carbolized vaccines are prepared in precisely the same manner as the others but instead of bouillon, a five per cent. solution of carbolic acid is used. In these vaccines there are no living cholera germs. The vaccines are injected beneath the skin with a sterilized hypodermic syringe. The injection of the "exalted" vaccine is made about five days after the injection of the attenuated virus.

A Case of Glanders in Man.

The fact that glanders are communicable from horse to man has long been known, but the record of an authentic case in which the specific bacteria were demonstrated in both subjects of the di-

sease, is not of common occurrence. Clement (*The Journal of Comparative Medicine and Veterinary Archives,* February, 1893) gives a full account of a case of glanders in a man in Baltimore, with the post-mortem notes on both the horse and the man. The clinical history given is as follows: "Mr. H., white, age 34 years, was employed as a nurse in a car stable, and also took care of a horse belonging to his brother. He had a habit of biting his finger-nails until the skin would bleed. One day he noticed a swelling on the end of his little finger, which grew rapidly worse and became very painful. An abscess soon formed in the axilla. This was followed by the appearance of sores on other parts of the body, swelling of the nares, hyperæsthesia, and semi-unconsciousness. The attending physician thought that he had a case of septicæmia to deal with, but in consultation the diagnosis of glanders was made. The patient was unable to give an intelligent history of his case and it was not known by the physician that he had attended a horse which presented symptoms of glanders."

After the death of Mr. H. an investigation was made by the State Veterinarian and the health authorities, which revealed the fact that the horse belonging to the deceased's brother showed symptoms of glanders. It was immediately put in quarantine. A few days later it was treated with mallein obtained from the Department of Agriculture. The reaction was decided and the animal was killed and found to have glanders.

Mallein is being prepared under the direction of Dr. Welch, from cultures obtained from a guinea pig that died from the inoculation of infected tissues from the man.

The Differentiation of the Bacillus Coli Communis and the Bacillus Typho Abdominalis.

Luksch (*Centralblatt f. Bacteriologie u. Parasitenkund* xii, 1892, p. 47) gives the results of his study of these bacteria. In their cultural characters the same conclusions have been known for some time, but in their morphology he points out a difference not heretofore considered in differentiating these bacteria. The motility of bacteria is due to the presence of minute hair-like appendages called flagella. On the bacillus of typhoid fever Luksch found as many as from eight to twelve of these delicate filaments, while on the bacilli coli communis he could not find more than three flagella and usually a less number. He also found that the flagella could be stained much more readily on the typhoid germs than on the coli bacteria. The motility of the typhoid bacilli was much more marked, as determined by the examination of fresh preparations, than that of the coli germs. The flagella were stained by the use of Löeffer's method, which consists in treating cover-glass preparation with a mordant before applying the staining fluid.

To Obtain and Mount Crystals of Haemoglobin.

Here is a simple and excellent plan that we have used for many years: Let fall a minute drop of blood on the center of a perfectly clean slip, and let it stand until under a loupe you can see it beginning to dry at the edges. Take a little thick chloroform solution of balsam, or a benzol solution of dammar, and first spin a little ring around the blood, winding up by letting a good sized drop fall directly on the blood so as to completely cover the latter and unite with the ring already spun around it. Now put your slide under a bell glass, and allow it to stand until the balsam is quite hard and dry on top. In summer this will take forty-eight hours; in winter longer, unless the surrounding air is kept warm artificially. When the balsam is dry dip a clean spatula in benzol and pass it rapidly through it, removing the surplus, heat your cover-glass and drop it while hot on the slip, and finish your mount in the usual way. On examining your slide you will find that beautiful crystals of hæmoglobin have formed in the center, and the other elements of the blood have been permanently preserved.—*Nat. Druggist.*

DOCTOR—Troubled with sleeplessness, eh? Eat something before going to bed.

PATIENT—Why, doctor, you once told me never to eat anything before going to bed.

DOCTOR (with dignity)—That, madam, was 1889. Science has made great strides since then.

ABSTRACTS.

ON SOME OF THE TROPHO-NEUROSES ASSOCIATED WITH ABNORMALITY OF THE THYROID GLAND.

Dr. Solomon Solis-Cohen reported (Phila. Co. Med. Soc., Feb. 8, 1893,) and exhibited photographs of two cases of akromegalia, in both of which there was apparent absence of the thyroid gland, and marked skeletal changes in addition to those in the face, hands, and spine. The patients where males, one twenty-five years of age, the other fifty-one years old. In neither case was there any eye-lesion. The case of the younger man had been previously reported to the College of Physicians. In the elder man headache, drowsiness, forgetfulness, thickness and scanning of speech, and excessive polyuria were present. The symptoms had been partially relieved by picrotoxin, the headache especially. This drug was a vasomotor regulator and useful in many of the conditions to be discussed. It was necessary to say "apparent absence" of the thyroid gland, because only *post-mortem* could absence or atrophy be unqualifiedly affirmed. Embryologically the pituitary body and thyroid gland were intimately related, and it appeared not improbable that the enlargement of the former and the consequent hemiopia and other cerebral symptoms noted in some cases of akromegalia might be due to an attempt by nature to supply the absence of an important structure by compensatory hypertrophy of an allied structure.

A number of cases in which the thyroid gland could not be demonstrated and which presented some, but not all, of the changes found in typical cases of akromegalia were likewise related. In one such case the hands and ears presented marked local asphyxia (Raynaud's disease), while the pain and transient redness developed in the feet upon exertion were suggestive of the condition described by Weir Mitchell under the name of erythomelalgia. In another case, in an aged man, there were cardiac lesions and muscular tremors, with wasting, as in progressive muscular atrophy.

Other cases observed by the speaker in which thyroid atrophy apparently existed were: One case of hypertrophic osteo-arthropathy with emphysema and fibroid phthisis, in a man fifty years of age; one case of scleroderma with cardiac lesions, muscular tremors and mental changes in a women apparently quite aged, who insisted, however, that she was less than forty years old; and one case of unilateral spontaneous gangrene and ulceration of the toes and leg (Raynaud's disease), with bilateral spasmodic vascular phenomena in a woman over sixty years of age. In the latter case certain changes in the fingers and nails existed, which in one finger resembled those of akromegalia, in another finger those of rheumatoid arthritis, in another finger those of sclerodactyle, the nails of all the fingers being curved like those of the Hippocratic finger, as in pulmonary hypertrophic osteo-arthopathy. That this latter condition of the nails and finger tips could be ascribed to interference with nutrition through the circulation was held to be shown by the occurrence in cases of cardiac disease without pulmonary or obvious nervous lesion of fingers indistinguishable, and of which pictures and tracings were exhibited.

Taking up conditions of trophic and vascular disturbance associated with enlargement of the thyroid gland, Dr. Cohen briefly alluded to exophthalmic goitre, myxœdema and cretinism, laying stress upon the fact that as, on the one hand, in akromegalia there might be enlargement instead of apparent absence or atrophy of the thyroid gland, so, on the other hand, in myxœdema and cretinism, the goitre might be lacking, while experimental thyroidectomy, as well as the *cachexia strumipriva* that followed surgical extirpation of the gland, proved that the symptoms were due to a functional atrophy of the gland, whether or not there was hyperplasia of the non-essential anatomical elements. Stress was laid upon the varied vasomotor distubances in all these marked conditions.

In one case of Raynaud's disease an affection, which, so far as the vasomotor phenomena are concerned, is almost an antithesis of Graves's disease, Dr. Cohen

had observed in an anæmic girl, with occasional tachycardia, an intermittent enlargement of the thyroid, just as is observed in certain cases of exophthalmic goitre, and in certain ill-defined cases for which he had proposed the name of *vasomotor ataxia*, which latter could not be called exophthalmic goitre, but in some instances might readily develop into that condition. These latter cases, observed both in males and females, but principally in the latter, and in hysterical subjects more often than in others, showed as an almost constant feature the intermittent presence of hæmocytes in the urine; sometimes, but rarely, transient or intermittent albuminuria as well. In some cases lithuria and oxaluria had been noted, especially in those of rheumatic, gouty, or diabetic families; still more rarely casts or cylindroids had been found. These observation were related with the occurrence of hæmoglobinuria in Raynaud's disease, and of hæmaturia and other hemorrhages, such as purpura, hæmoptysis and hæmatemesis, all of which the speaker had personally witnessed, in Graves's disease; as well as with the occasional albuminuria of the latter, and the polyuria, albuminuria and glycosuria of myxœdema and of akromegalia, and the morbid perspiration and localized œdemas and flushes of all these conditions, and of angio-neurotic œdema—in which latter condition he had also found hæmocytes in the urine during and after paroxysms affecting the throat in one woman and the arms in another. In some of his cases of vasomotor ataxia, a condition which varied much in its severity, from but slight abnormality to such marked affections as those associated with the names of Graves and Raynaud, the author had observed hæmatemesis, with symptoms suggestive of gastric ulcer, anæmia, menstrual irregularities, migraine, transient localized œdema, transient local blushing, permanent dilatation of isolated groups of capillaries and venules, stigmata, local syncope, erythema nodosum and urticaria; in one case there had been transient blindness. In two other cases, in which, however, no thyroid abnormality had been detected, there had been membranous enteritis. Subjective and objective coldness of the knees was marked in one case in which the thyroid was enlarged. In another case, the first observed by Dr. Cohen in a male, there had been great rapidity of the heart's action and intermittent goitre as well, so that the case might well have been called Graves's disease, and doubtless belonged positively in that category. Strictly circumscribed erythema and factitious urticaria could be readily produced in all these cases by writing upon the skin with a probe, or in some instances applying cold to the part. In a colored women with exophthalmic goitre the effect was almost startling.

The connection of rheumatism with Graves's disease, and the heredity of both, was too frequent to be a mere coincidence. In certain cases of rheumatoid arthritis the thyroid gland was found to be enlarged, and tracings were shown of the fingers of an old man with rheumatoid arthritis and arthritic muscular atrophy, in which the parrot-beak pad and nail were shown in the terminal phalanx of the thumb, which was hyper-extended, while the sharpened and atrophied terminal phalanges of the other fingers resembled sclerodactyle, and were almost identical with the tracings from the case of Raynaud's disease. Allusion was made to the tetany of thyroidectomy and the tremors of exophthalmic goitre, some cases of myxœdema, the speaker's cases of scleroderma and of Raynaud's disease, and some of his cases of vasomotor ataxia; as also to the occurrence of phenomena like those of Raynaud's disease in certain cases of scleroderma, the anæmia and the extreme susceptibility to cold, which was a feature of all the conditions described. To complete the list of associations observed, and admitting that they might be coincidental, there were many reported in connection with the occasional occurrence of epilepsy in Graves's disease, two cases of the speaker's, in one of which *petit mal* had developed in an anæmic girl with enlarged thyroid and occasional tachycardia, and in the other, a male, with enlarged thyroid, tachycardia and flushed face accompanied the epileptic paroxysm. The not infrequent termination in phthisis of many of the conditions alluded to might have no other significance than impaired nutrition, but the recent observation of hæmoptyses occurring only during paroxysm in one case of epilepsy without appreciable pulmonary lesion, and in one case of local as-

phyxia with but trifling signs on the chest and a few tubercle bacilli in the sputum, had suggested the thought that vascular disturbances in the lung might be the determining factor. Finally, attention was called to the success of various observers in treating myxœdema by implantation of a thyroid gland, by injections of thyroid extract, and by feeding with fresh thyroids. It was suggested that the same treatment might be of benefit in many of these varied conditions narrated.

The speaker desired to avoid premature assertion of causal relationship, and had therefore made use of the words "associated with," rather than "dependent upon" abnormality of the thyroid gland, in describing the trophic, neurotic, and neuro-vascular phenomena discussed; some of the complicated associations he had been unfortunate enough to meet with were doubtless purely fortuitous. The tendency of diagnosticians was naturally to discriminate among groups of phenomena presenting similarities, and thus to divide rather than unite. Nevertheless, the student of pathology in its broad sense, must be on the alert for commonalty of phenomena, and certainly the very variety of the nutritional disturbances associated with abnormalties of the thyroid gland indicated a profound relationship among them, dependent upon the important metabolic functions of the gland.

The researches of many observers, in particular Horsley, had demonstrated this metabolic importance, and that the secretions of the gland acted in the organism in some way. Dr. Cohen believed that they were in truth chemio-tactic or regulatory, and that individual constitution, heredity, environment, habits, and the like, determined the particular direction in which failure of their function would be manifested. Most certainly an intimate relation existed between the thyroid gland and the visceral nervous system, more especially the vasomotor mechanism. Of course, under the conditions, it was difficult to separate primary from secondary phenomena—the mediate results of the train of action of a mechanism from the immediate results of the influences that had set the mechanism in action.

The main purpose of the paper was to suggest more common observation clinically and at autopsies of the thyroid gland, so that sufficient data might be collected by a number of observers in order to determine what is accidental and what essential.

"Did Not Know It Was Loaded."

A correspondent from Chicago writing to the *Kansas City Medical Index,* maintains the fact that so large a number of physicians in active practice, are deficient in two of the most important branches of the art, viz.:—chemistry and pharmacy—too deficient to be safe,—for the lives of their patients and their own reputations.

He says that recently a second year student of one of Chicago's prominent medical colleges entered a drug store and wanted some "subnitrat of bismuth," at the same time asking the druggist "if it was necessary to have a bottle to put it in, as he did not know what it was."

A graduate from the same school prescribes sulphate of morphia in aqueous mixture with liq. potassæ. The druggist filtered out the precipitated alkaloid and the doctor got no effect from his morphia, —a fortunate thing for the patient that it was filtered as he would have gotten it all at one dose.

A professor in the same college ordered the following prescription:

℞ Ammon. Carb. ..... ℥i
Tr. Digitalis. ..... ℥iii ss
Strychnia Sulph. ..... gri
Elix. Simp. ad ..... ℥iii
M. Sig.—Teaspoonful every four hours, in water.

A very dangerous prescription, as the ammonium salt will precipitate the strychnia and active principle of the digitalis and the patient get an overdose—a bad example to set before his pupils !

Another professor in a prominent Chicago Medical College prescribed a mixture of ammonium carbonate and morphine sulph. in a cough mixture for a baby.

It was not learned whether the child survived or not. The best that the druggist could do was to put a "shake the bottle" label on.

The writer also noticed that several doctors prescribed one twenty-fourth of a grain of murcuric chloride in solution, given (internally) every hour, in a case of diphtheria. This was continued several days and nights—the child died !

THE LIBRARY TABLE.

BOOK REVIEWS.

Handbook of Insanity. By Dr. Theodore Kirchhoff, of Kiel. Pp. 363. Illustrated with eleven plates. New York: William Wood & Co., 1893.

This is one of the volumes of "The Medical Practitioners Library." It is almost equally divided into a General and a Special part, the former giving the anatomical basis and the location of mental disturbances, the classification, importance and mode of action of the causes of insanity, and the signs, course, diagnosis, and treatment of mental disorders. The latter part treats of the simple mental disorders, and the mental disorders associated with permanent anatomical changes in the brain, or with general disease. The work abounds in clinical pictures which are faithfully drawn by a master hand. The descriptions of sufferers from mania, melancholia and paranoia are remarkably good. Their clinical histories, habits, methods of thought, writing and speech are accurately described in detail. The author strongly advocates the early removal of such cases to an asylum.

An interesting feature of the book is the introduction of the plates which are excellent reproductions of photographs of patients suffering from mania, melancholia, paranoia, dementia, etc.

Whilst this is a very interesting and readable book it is to be regretted that such words as "*affects*" and "*concepts*" should so often recur, and that "*wahnsinn*" and "*verrueckheit*" should remain untranslated.

Text-Book of Physiology. By Dr. Foster. Part V. Appendix.—*The Chemical Basis of the Animal Body.* By A. Sheridan Lea, M. A., D. Sc., F. R. S. Sixth edition. New York: Macmillan and Co. 1893. Price $1.75.

The Appendix has been written upon the same lines as in previous editions, except it has been somewhat enlarged.

The term "Appendix" as applied to this volume is misleading, for in reality it constitutes a treatise on the chemical substances occurring in the animal body.

Dr. Lea, who is the author of this work, deserves great credit for a clearness and precision of definition which is not the usual characteristic of works on this subject. Chemists, physiologists and practitioners will welcome this new edition not only on account of its completeness but because it will give them a work that is fully abreast with the times.

Transactions of the American Orthopædic Association. Sixth Session. Volume V. Philadelphia: Published by the Association, 1893.

This association has an active membership of forty-six, together with six Honorary, and nineteen Corresponding Members.

At the meeting held at New York City in September last (1892), thirty-four papers were read and discussed.

Among the more important were those of Dr. Steele, of St. Louis, on "Plaster-of-Paris in Orthopædics"; "An Easy Way to Hold the Operated-on-Club-foot in the Corrected Position while the Plaster-of-Paris Splint Sets," by Dr. Sherman, of San Francisco; "At what Age should the First Treatment of Congenital Club-foot be Instituted?" by H. Agustus Wilson, Philadelphia; "Comparison of Operative Methods in the Treatment of Club-foot," by Dr. Willard, Philadelphia; "Spondylitis of Second Cervical Vertebra, with Report of Cases and Instrument for Treatment," by Dr. Reginald Sayre, of New York.

Mineral Springs and Health Resorts of California. By Winslow Anderson, M. D., M. R. C. P., Lond., M. R. C. S., Eng. San Francisco: The Bancroft Company. 1892.

This work received the Annual Prize of the Medical Society of the State of California in 1889. It contains in addition to the description of the mineral springs and health resorts of California a complete chemical analysis of every important mineral water in the world.

The work contains the names of over two hundred California springs with about one hundred analyses, and two hundred analyses of all the famous springs in America and abroad. Short sketches have been introduced on the fertility and natural productions of California; its historical account, climate, comparative thermometric tables, rainfall, etc., from which it will be seen that the golden shores on the Pacific compare favorably with all the most noted health resorts, whether they be found in the Old or in the New World.

This work abounds in matter that will be read with the greatest interest by students interested in the study of Balneotherapy.

Price List. Parke, Davis & Co., Detroit, Mich.

A compact, handy book of 200 pages, of value to all physicians and surgeons. Not only are prices and method of putting up the goods given, but there is a great deal of useful information contained in the volume.

Capitan (*Repertoire de Pharmacie*) recommends the following treatment for burns. Carefully wash the burned region with boric water or a $\frac{1}{2}$ to 1000 sublimate solution. Cauterize such spots as may be at all ulcerated, with a red hot needle. Cleanse the spots thoroughly and sterilize the hand, with which to apply the following:

℞

Salol	4. o (ʒi.)
Cocain. mur	0.25 (gr. IIIss.)
Vaselin	30. o (ʒi)

Cover with moist sublimate gauze. Over the gauze place absorbent cotton. Change this dressing every two or three days. Meanwhile keep the cotton moist by dropping sublimate solution upon it. If the burns have not suffered previous infection, they heal under this treatment without suppuration or pain.

CURRENT LITERATURE REVIEWED.

THE CHICAGO MEDICAL RECORDER.

The February number contains an article by Dr. Frederick C. Shaeffer on

Skin Grafting on the Cranium,

with the report of an interesting case. The patient, a mill hand, was caught by her hair in a rapidly revolving shaft and completely scalped—the entire skull being laid bare and the pericranium removed in places. Skin grafting was resorted to, 4,500 grafts in all being planted, of which the patient supplied 1800. From the reporter's experience the grafts should be placed close together, thereby forming a stronger skin than when planted farther apart. Dermal grafts with a few fibres of connective tissue form a smooth, soft, pliable skin presenting the characteristics of normal integument; the follicles are preserved, making the patient more comfortable and the new skin more durable. Autodermal grafts are more reliable than heterodermal grafts, providing the patient is healthy; while grafts from a person near the patient's own age give better results than those from one much older or younger. The paper is illustrated with cuts from photographs of the patient taken in different stages of the grafting process.

Dr. James H. Etheridge presents a

Report of Laparotomies

performed during the twelve months. There were in all one hundred and twenty-one operations with fifteen deaths. Celerity, he says, in abdominal operations is most desireable in the avoidance of shock from exposure of the abdominal cavity. Much benefit was derived, he thinks, from attempts at allaying existing active inflammation by rest in bed, laxatives, diuretics and the use of a protracted hot douche, two to four times a day, previous to the operation. The douche should be as hot as the patient can bear, and the improvement of tubal and ovarian disease under its influence was most marked. Pain and tenderness disappeared and, in some cases, total anchylosis of the pelvic organs gave way to a considerable degree. The reporter urges perfect and absolute cleanliness and the use of as few instruments as possible, because of the increased labor of keeping them aseptic. The report concludes with a detailed account of a few of the more important cases. A table of the diseases for which operation was performed is also included.

Dr. Chauncy F. Chapman, in an interesting article on

The Bichloride of Gold Treatment of Dipsomania,

describes the course of the Keely Institute. He points out the fact that, gold having a valence of one or three, a bichloride is a chemical impossibility. He gives the formulæ of the injections used, the principal ingredients of which are strychnia and atropia combined with a small amount of the chloride of soda and gold. Strychnia is recognized as a valuable neuro-tonic, while the atropia seems to decrease the appetite for alcohol. With the patient under the full influence of atropia, alcohol is painful to the dry fauces and mouth, and the systemic effects are no longer pleasant, as the author confirmed by experiments on himself. The method of using the injections at the "Institute" are described in full; and should a patient prove refractory and continue the use of alcohol whiskey in spite of the atropia, he is given a hypodermic injection of apomophia, without his knowledge, which, the writer says, never fails to produce the desired loathing for alcohol. He calls attention to the very large doses of strychnia employed. He has "exhibited hypodermically one-eighth grain given every two hours, by the mouth, until eight doses have been given in the day. This maxium dose is gradually but rapidly reached, beginning with one-fortieth grain hypodermically, until the effects of the drug becomes manifest, when the dose is gradually decreased." The strychnia is often pushed till muscular tremor is pronounced and in some cases antidotes have to be employed, chloral hydrate being habitually used for this purpose. The treatment should also include baths, plain, turkish or electric, massage, good feeding, tonics etc. He believes that the treatment is valuable when properly used; but as it is carried out in the Institutes, with the administrators ignorant of the drugs they are exhibiting, it is dangerous.

Dr. A. Belcham Keyes presents some remarks on

Simple Typhoid,

outlining the treatment as pursued at the Cook County Hospital, where one hundred and six cases were treated during three months, with eleven deaths. Coffee and alcoholic stimulants were used in small quantity, and seemed to do good in the later stages of the disease. "Sponging was found sufficient to reduce the temperature in all cases where it was possible. Phenacetine, antifebrine and antipyrine are considered a menace to permanent improvement and only a means towards a temporary reduction of temperature at the expense of cardiac force where the temperature yielded but slightly to sponging." Calomel as an abortifacient of typhoid is regarded as of doubtful value. Strychnia was used with good effect, lessening the restlessness and jactitation, thereby preserving the patient's strength. Quinine, in six grain doses every four hours, was the only antipyretic given. Salol, nitrate of silver, and carbolic acid apparently gave good results in limiting the tympanites, "but it is impossible to believe that any antiseptic effect was produced on the lesions of Peyers patches." Turpentine with opium did good service in hemorrhage. Tincture of iron and glycerine in large doses were given, in some cases markedly shortening the dry stage.

Dr. Robert S. Nourse reports a case of "Cerebral Abscess" in which there was an area of tenderness complained of in the right temporal region on a level with the top of the right ear and one inch in front of the same; there was also paralysis of the left side. A trephine opening was made six or seven centimeters above and one and one-half centimeters in front of the external auditory meatus. On introducing a grooved director into the brain to the depth of two inches, a drachm of thick fetid pus flowed out. The brain opening was enlarged and a drainage tube introduced. The patient did well for a time but died on the tenth day. At the autopsy a softened area was found around the inferior extremity of the fissure of Rolando and, on tearing this away, an encapsulated abscess was discovered containing three and one-half ounces of thick fetid pus.

The remaining paper is by Dr. John A. Robinson, on "Laryngeal Paralysis."

THE PRACTITIONER.

The February issue of The Practitioner gives the first place to an article on "The Action of Drugs on the Bladder and Genital Organs" by Dr. Lauder Brunton. The subject is considered under three heads. (1), The action of Drugs on the Motor Power of the Bladder. (2), The Action of Drugs on the Urethra. (3), The Action of Drugs upon the Genital Organs.

Dr. Croom in a paper on

Kolpocystotomy in Relation to Chronic Cystitis in the Female,

is of the opinion that few if any conditions short of malignant disease are less amenable to treatment than chronic cystitis in the female. Under the head of local treatment of cystitis he strongly urges against the persistent use of opiates and other anodynes, with a view of relieving the habitual suffering of this disease. "Far from relieving," he says "they aggravate the patient's distress, interfere with her secretions, disorder her digestion, and render her already distressing condition an absolute hopeless one." The treatment offered is a purely local one; the principles on which the treatment is to be conducted are two. First, antiseptic treatment of the mucous membrane; second, continued rest of the hyper-trophied muscular coat.

Bromoform in Whooping-Cough

is the subject of Dr. Burton-Fanning's paper. Bromoform is a colorless oily liquid, with an ethereal smell and sweet taste; it is insoluble in water, and, after many experiments conducted by Mr. Balls, it was most conveniently prescribed thus:

Bromoform	mi.
Pulv. Tragacanth Co	ʒss.
Syrup Simp	ʒss.
Aquae, ad	ʒss.

This forms a pleasant mixture, and the bromoform is well suspended. The appropriate dosage of bromoform is as follows: m ss. for children under one year; m i. up to three years; m ii. up to six years—thrice daily to commence with. If necessary, these doses may safely be gradually increased till they are doubled. Bromoform is decomposed by exposure to light and becomes brown from liberation of bromine, when it must on no account be used. The results have been uniformly gratifying. Usually on the second day of treatment the number of paroxysms are noted as fewer, falling often from about one an hour to one or two a day, and in mild cases ceasing altogether. The attacks are also shorter and less violent; vomiting *always* ceases. Those cases which have epistaxis or other hemorrhages lose these symptoms, expectoration becomes more easy, and bronchitis gradually disappears. Among the cases quoted the following one may be taken as a typical one:

A. L., 2½ years, has had whooping-cough for ten days, having a paroxysm about every hour, accompanied by vomiting and expectoration with streaks of blood; his "breath stops," and once he fell down during an attack. Bromoform (m i.) was ordered three times a day, and on the second day he had only two paroxysms, and no vomiting or stoppage of breath. Afterwards he had none until at the end of a week; belladonna was substituted for the bromoform, when the whoop returned, again, however, to disappear on resuming bromoform, the use of which was continued for five weeks. It is claimed that the drug is of specific power against the main symptoms of whooping-cough—the paroxysmal cough, on which depend the chief dangers of the disease. The doctor says he cannot satisfy himself that the duration of the illness is materially shortened, the average length of the paroxysmal stage in his cases being thirty-one days, but during this time the patients were free from the characteristic cough and its attendant miseries, though these all returned at once, if the bromoform was discontinued within four weeks. The remedy is sufficiently specific in its action to be of the greatest use in diagnosis. The doctor commends it for trial in this common, but by no means trivial, affection of childhood.

"Laparotomy in General Surgery" by Dr. Banks, of which we will speak elswhere, and "Arterial Tension in Angina Pectoris, and its Therapeutical Indications" by Dr. Williams concludes this number.

INTERNATIONAL MEDICAL MAGAZINE

for February contains few articles which call for special attention—nine papers; four of these were read before the American Climatological Association last June.

Dr. Tyson considers at some length. "The Primary or Essential Anæmias"—(1), chlorosis; (2), progressive pernicious anæmia; (3), leukæmia; (4), lymphatic anæmia; (5), splenic anæmia, or splenic psendoleukæmia. The paper contains nothing that is new, it is simply a review of the conditions constituting the anæmias and the management which modern clinical experience has determined to be the most successful.

Dr. Crother's paper

Medical Jurisprudence of Alcoholic Inebriety

is a carefully prepared study of this subject. Some of the facts which have been presented may be grouped as follows:

1. The number of inebriates which come under legal notice is steadily increasing. The methods of treatment are practically failures in every sense.

2. Alcohol is a paralyzant on body and brain, acting upon the senses first, then upon the reason, and finally causing palsy of the higher brain-centers.

3. Many forms of alcoholic injuries occur, of which *trance*, *epilepsy*, *paralysis*, *traumatism*, *insanity* are common.

4. Heredity, training, and surroundings are active forces which lead up to alcoholic excesses.

5. The continuous use of spirits numbs and breaks up the higher brain-centers, and all persons who use alcohol in excess have lessened and impaired responsibility.

6. The natural tendency of all persons who are damaged by alcohol is to lawlessness and crime.

7. The error of regarding all persons as sane who continually poison themselves with spirits results in an increase of crime and the production of a degenerate class. Courts and juries judge of these cases from theory and not from facts.

8. Such cases should be examined by a medical commission, and their conclusions should be final in the evidence.

9. Military hospitals should be built from the license fund and supported by the labor of inebriates sent to it for life or a period of years.

10. All inebriates should be regarded as insane and irresponsible and should be forced to go into military hospitals. They should be treated in the same way as cases of infectious disease are treated.

11. The medical jurisprudence of inebriety promises more for the solution of the alcoholic question than any other means.

THE GLASGOW MEDICAL JOURNAL.

The February number contains nine articles. Of these, we mention, by title, those of Dr. Fraser "On a Case of Sensory Aphasia or Word Deafness, with the Clinical and Pathological Record; with a Case of Functional Auditory Amnesia;" Dr. Marshall "On a Case of Multiple Vascular Nævi, with subsequent Disappearance of many of them;" Dr. Monro "On a Case of Diffuse Gangrene of the Left Lung, due to the Unsuspected Presence in the Bronchus of a Temporary Molar Tooth, which had Accidentally become Dislodged while Patient was under an anæsthetic."

Dr Macphail has a paper on "A Note on Statistics of Enteric Fever." On this subject the only reliable general statement seems to be that the natural variation in enteric fever is so great as to detract very much from the value of statistics as to the results of treatment.

In "Clinical Memoranda," reported by Dr. Jack, on Selected Cases from the Wards of Dr. McCall Anderson's patients, calls attention to (1) "A Case of Pernicious Anæmia—Recovery Under Arsenic—Unusual Complication Terminating Fatally—Post-Mortem Examination;" (2), Case of Cancer of the Lung, complicated with Secondary Cancer of the Liver."

Dr. John Dougall presents "Three Cases from the Wards of the Glasgow Royal Infirmary." (1), Ergot in Diabetes Mellitus; Patient, male; aged 21; specific gravity of urine 1035, acid, and contained twenty-eight and a-half grains of sugar per fluid ounce. During the first six days after admission the quantity of urine passed averaged 226 ounces per day, with a mean specific gravity of 1040. On one of these days the urine measured 310 ounces. The sugar passed daily was close on fifteen ounces. The treatment consisted of a regulated diet, the only medicine given was half a fluid drachm ext. ergot liq., thrice daily. In a week after admission his thirst was entirely gone, the quantity of urine had fallen to about sixty-five ounces daily, specific gravity unchanged. Thirty days after the ergot was commenced it was increased to one fluid drachm, thrice daily, which was continued for two months, then increased to one and a-half fluid drachms ergot, which was continued until he left the hospital, two weeks later, his conditition then being as follows:

STATE ON ADMISSION.

Weight, 8 stone, 12 pounds.
Very weak.
Great thirst.
Much hunger.
Urine, 226 ounces daily.
Sugar, passed daily, 15 ounces.
Skin, harsh and dry.

STATE ON LEAVING.

Weight, 9 stone, 2 pounds.
Much stronger.
No thirst.
Moderate appetite.
Urine, 64 ounces daily.
Sugar, passed daily, 4.9 ounces.
Skin, soft and moist.

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(2), Biniodide of Mercury in Traumatic Eclampsia.

(3), Case of Poisoning with Bromide of Potassium.

A special point in this case is the lengthened period—three weeks—during which the bromide exerted its physiological action. The presence of bromides, however, have frequently been found in the urine two weeks after the last dose had been taken, and Rabuteau, under similar circumstances, has seen its presence (bromine) persist for a month, thus showing that the bromides are slowly excreted. The symptoms in this case held as due to bromism were the general cutaneous anæsthesia; muscular relaxation; total abolition of the reflexes; lowered temperature, respiration, and pulse; the great somnolence. It has been said that in some cases of bromism the pupils are dilated and uncontractile,

and that the color of the skin and face is unchanged. In this case, however, the pupils were normal, while the face was livid. This latter condition was, no doubt, caused by the reduced cardiac action, and respiration preventing due "æration" of the blood; hence also the subnormal temperature.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY.

The February number contains a description of "A Convenient Ophthalmoscope" by Dr. Howe, of Buffalo. The instrument consists of a concave mirror twenty-eight millimeters in diameter, behind which is a revolving disc containing five plus and five minus glasses, with one opening. A convex lens of the same diameter as the mirror and disc completes the instrument which is said to be "simple, compact and as useful as the ordinary refraction ophthalmoscope."

This is followed by a translation of Gullstrand's paper on the "Objective Method of Diagnosis in Paresis of Ocular Muscles" to which we have elsewhere referred.

Under the head of "Selections" is a contribution by Dr. Seguin on

Eye-Strain and its Relation to Cerebral Hyperæmia.

The writer commences by saying eye-strain, more especially that due to paresis or original weakness of the third and sixth cerebral nerves, produces many symptoms besides cephalalgia and migraine which have lately received so much intelligent attention." "The chief of the symptoms are: Occipital, sub-occipital and occipito-cervical pain and distress; a sense of stiffness in the occipito-cervical region, ("at the base of the brain," as is commonly said,) feeling of fullness, pressure or lightness in the head; sensations of numbness or of formication in the scalp; varying degrees and forms of dizziness (but not true vertigo); inability to read, write, sew, converse, sit at table, to go on the street or into rooms, and even to "think" without supervention of aggravation of symptoms; fear of certain places; insomnia; emotional attacks; pains (differing from migraine) in various parts of the head; and, later, also the multiple symptoms termed neurosthenia." Such symptoms, the writer believes, have too frequently been grouped under "such wholly theoretical diseases" as "*cerebral hyperœmia*" and "*congestion of the base of the brain.*" Dr. Seguin prefers to term them "Cephalic parœsthesia." He offers a preliminary partial grouping of these symptoms. The majority of cases presenting such symptoms are, he thinks, "cases of eye-strain, exhaustion and hyperæsthesia resulting from the persistent use of weak neuro-muscular organs, more especially the third and sixth nerve apparatuses." After mentioning that some cases of cephalia parœsthesia are due to dyscrasic conditions, more especially lithæmia, oxaluria, latent gout, etc., and that lightness in the head and deficiency in power of attention may be due to anæmia, cardiac disease, organic cerebral disease, etc., he returns to a fuller consideration of the "Symptoms of Paresis (Insufficiency) of the third and sixth nerves and attacked muscles."

LIPPINCOTT'S FOR APRIL.

Is mainly devoted to Columbus and the Exposition. The complete novel, "Columbus in Love" is by George Alfred Townsend ("Gath"), and narrates fully and feelingly the great discoverer's relations with Beatrix Enriquez. The leading person of that day in Spain, and some of the chief scenes, are introduced,—Isabella, Ferdinand, the court, the bishops, the fall of Granada, the Inquisition, as well as those most closely associated with the Genoese,—the faithful Nunez, the good prior of Rabida, Pinzon, the sailors, and many more. The novel is fully illustrated.

William Ingleheart tells "What the Publicity Department did for the Colunbian Exposition." A portrait of Major Moses P. Handy accompanies this article.

Julian Hawthorne attempts "A Description of the Inexpressible,—the buildings of the fair; and Frederic M. Bird characterizes "The Religion of 1492" and that of Columbus.

The non-Columbian papers include one by Edgar Saltus on "Sappho;" an installment of M. Crofton's "Men of the Day," covering J. A. Froude, Gounod, Dr. Farrar, General Howard, and Congressman Holman; and an illustrated tale by Annie Flint,—"Abraham's Mother."

ARCHIVES OF PEDIATRICS.

Dr. Rotch begins a paper in the February number on "The Value of Milk Laboratories for the Advancement of our Knowledge of Artificial Feeding." Dr. Osler offers a paper "On Dilatation of the Colon in Young Children" which is merely a reference to a number of cases already reported, together with a few remarks on two children coming under his observation. "Treatment of Bronchial Catarrah in Infancy" is the subject of a very interesting paper by Dr. Carmichael. "Clinical Memoranda" containing seven articles; and two clinical lectures, one by Dr. Jacobi, the other, by Dr. Wharton is the full table of contents of this number.

Dr. Hallister in speaking of the causes and treatment of dropsical effusions, states that: The more obvious causes of dropsy may be enumerated as follows:

First. In cases of hydræmia where, in proportion to its other constituents, the watery portion of the blood is largely increased.

Second. In cases where by imperfect nutrition the walls of the capillaries are weakened.

Third. A more common cause—by reason of increased blood pressure, and

Fourth. A still more common cause—impediment of the venous circulation, and consequent congestion of the capillaries upon which reflex pressure is exerted.—*Chicago Clin. Rev.*

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ORIGINAL ARTICLES.

W. H. Burr, M. D., Wilmington, Del.
Malignant Grippe 477

CLINICAL LECTURES.

Henry M. Lyman, A. M., M. D., Chicago.
Retardation of Brain Development: Gastralgia: Defective Nutrition: Loss of Memory . . . 481

COMMUNICATIONS.

Wm. Cheatham, M. D.
Paralysis of Laryngeal Muscles, with Cases . . 486

H. Reasoner Geyer, M. D., Norwich, O.
Treatment of Biliary Colic with Glycerine . . 488

A. M. Vance, M. D., Louisville, Ky.
A Case of Gonorrhœal Rheumatism 490

H. H. Sutherland, M. D., Herrington, Kan.
Rupture of the Uterus following Administration of Ergot, with Report of Case 491

SOCIETY REPORTS.

The Clinical Society of Louisville 492
The Western Association of Obstetricians and Gynecologists 496

EDITORIAL

Anæsthesia 500

TRANSLATIONS 504

ABSTRACTS 508

CURRENT LITERATURE REVIEWED . . . 509

SELECTED FORMULÆ. 513

PERISCOPE

MEDICINE 515
SURGERY 515
OBSTETRICS 516

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THE
MEDICAL AND SURGICAL
REPORTER.

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ORIGINAL ARTICLES.

MALIGNANT GRIPPE.

W. H. BURR, M. D., Wilmington, Del.

Notwithstanding I have been keenly scrutinizing the literature relating to the subject of la grippe in its various forms, I have been able to find nothing satisfactory in the way of a clear exposition of the subject in all its details. And nothing at all treating of that particular form or phase of it which I denominate as above. By a clear exposition I mean that which gives not only a perfect description of the symptoms which may occur in the disease, but also a rational idea of the pathology, cause of death when death occurs, and proper treatment based on a thorough understanding of its pathology.

From time to time some mention has been made, in some of the journals, of symptoms of failure of heart and respiration which may occur, and which have occurred in individual cases belonging to the practice of different physicians, but which were promptly met and conquered by the use of digitalis, caffeine and strychnine.

But the typical case of malignant grippe has been ignored and the symptoms of heart failure have been considered only as incidental, and as liable to occur in any case.

Before I describe the typical case I will present a few cases not considered typical of the malignant type, yet in which the incidental complication of heart failure occurred.

Four cases of this character recur to my mind, but as I did not take notes, I shall have to give only a meagre outline of the symptoms.

Case I. Female, æt. 62, a patient of my father, Irish, not very well nourished and a bad feeder.

There were the usual symptoms of invasion and the principal complication was a not very severe catarrhal affection of the lungs. She complained very little and did not seem to be seriously ill, when, on the evening of the fourth or fifth day, F—— was sent for, messenger saying Mrs. K—— was much worse.

Upon his arrival at 5 P. M. he found there had been progressive failure of respiration beginning at 3 o'clock. Patient was blue, respiration almost ceased; hands and feet blue and cold. The chest was immediately enveloped in powerful mustard plasters. Ammon. muriate to the amount of two drachms was stirred up in a bowl with hot water and a little whiskey, and the whole quantity given in the space of an hour, being teased down the throat a little at a time.

The patient reacted and ammon. muriate gr. v., was given every hour for several days, with whiskey and light nourishing food.

Case II. Male, æt. 61. After several days illness in which there was the same complication of catarrhal pneumonia, but in which the lungs were perfectly pervious to air throughout their whole extent, symptoms of heart failure and also of the respiratory center came on. In this case whiskey and nourishing food was given, the stomach interdicting any great amount, and the result was happy as the patient got well.

Case III. Female, æt. 91. After several days illness without any severe complications, only a mild catarrhal affection of the lungs being present, progressive failure of the heart and respiration came on, and despite all remedies and stimulants, patient died.

Case IV. Female, æt 73. Similar to first case, and same treatment was pursued, except the ammon. muriate was not given in so large an initial dose as one or two drachms, but was given for several days in doses of grs. v., every one or two hours. Result, recovery.

But there is an insidious and intensely malignant form of la grippe constantly among us, which not only is not recognized, but the symptoms and pathology of which have never been intelligently described.

This difficulty is increased from the fact that cases of it generally occur sporadically or between the seasons in which the epidemic shows itself. How easy it is, in nondescript cases of disease, to satisfy ourselves and the public by saying "it is a mysterious or anomalous case of malarial poisoning, or typhoid fever." Some time ago a physician writing from some place in West Virginia to a western medical journal, bemoans the fact that he has had seven cases of a mysterious disease, all of which have died.

No one ever attempts to classify these cases, they are simply dead to the attendant and to medical science. I am conversant with four similar cases which I shall denominate cases of "malignant grippe," all of which died and none of which were recognized as la grippe. As nearly as I can recollect, not having made notes of the cases, I give a short description of their symptoms.

Case I. Female, æt. 38; a very near relative of mine. It happened in March, 1891, four or five weeks after the general epidemic for that season had ceased, and everyone had begun to forget all about the disease. The patient was two or three months pregnant, and had been very much run down by previous hard work and mental worry. Was taken with a diarrhœa early in the morning; was weak and miserable. Got up later in the day but the trouble increasing, a doctor was sent for. The diarrhœa became dysenteric in character, and did not respond much to remedies. Finally the bowels became somewhat checked, when vomiting began which became uncontrollable, and in twenty-four hours patient was in a state of collapse and almost given up to die.

Patient reacted and I saw her in the evening about the fifth day from the time she was taken. The bowels were then under control, but she was retching all the time, putting her fingers back in her throat and attempting to vomit despite all remonstrance.

She seemed aware of my personality, but appeared to be in a dazed semi-conscious condition. Pulse was 90 and seemed good, temperature much above normal.

All they were giving her was very poor champagne, one-half teaspoonful, Bovinine gtt. xx, every half hour. I went to bed in the next room, directing that I should be called at 6 o'clock. Was called at 6 A. M., found the patient pulseless, unconscious, with high temperature and commencing to abort.

She died at 3 P. M., stimulants by mouth and under the skin apparently having no effect.

Case II. Female, æt. 28; happened in the following, Summer in this city. Was attended by a friend of mine. It came on in very much the same manner with a dysenteric discharge and ending with progressive failures of the heart and respiration. Diagnosis 'Malignant Typhoid.'

Case III. About two months ago, male, æt. 29, nervous hysterical temperament and with latent tuberculosis, was taken with all the preliminary symptoms of grippe. Pains in back and limbs and chill.

Patient took some cathartic pills and had two free evacuations. Kept at work for one or two days and then quit and sent for me.

I saw him in the evening; temperature 104.° Gave him hypodermic of morphia and atropia and sent him to bed. I had been attending a typical case of typhoid fever a few squares away, and could not disabuse my mind that this was a case of typhoid.

Accordingly, treated him the first few days in a mild antiseptic manner.

The next morning the temperature was down and for several days ranged not over 102°, running down to normal and subnormal in the morning. Patient did not seem very sick but was very nervous and

could not sleep at night. There was not much if any localized tenderness of the abdomen, but complained occasionally of a general uneasiness, and there was the first few days a good deal of rumbling and borborygmus. Complained pretty constantly of pain over the region of the liver. Bowels were obstinately constipated, notwithstanding the use of enemata and calomel.

About the seventh day, the patient vomited his milk undigested and with every successive amount of milk ingested complained of nausea. Vomiting continuing, chicken-water was substituted for the milk, given in tablespoonful doses every half hour with the addition of whiskey. All this time the pulse has been full and fair, becoming somewhat softer with the progress of the case. Temperature ranging from normal to 102°–103° F. Vomiting continued at intervals, but was not very bad. On the morning of the tenth day the pulse went up to 120, which was the first real sign of impending danger. Distressing hiccough set in and continued until death. In the afternoon he vomited a quantity of thin, black fluid which had a peculiar smell, which, though it could not be called fæcal exactly, yet somewhat approaching that odor at times, while at others no fæcal odor could be detected and it had simply a pungent, sweetish, bilious smell. Pulse continued to go up and vomiting continued, the ejecta being thrown up and spit out without any particular effort of the patient. Respirations increased and patient died at 2 A. M., eleventh day.

Two things were noticeable in this case: An anxious look, and peculiar deep respirations somewhat similar to those which occur in the pyrexia of typhoid, although there was no fever to account for them; these were both present from the beginning.

Case IV., in a female, æt 62, rather delicate organization; happened during the last blizzard, beginning Feb. 12th, and ending Monday, 20th. A period abounding in piercing, damp winds from the west which were rendered still more discomforting by being charged with the moisture from large areas of melting snow,—an atmosphere peculiarly conducive to the development of grippal poison. This period is the longest in my knowledge, in which the wind has had that peculiar blizzard-like quality, finding its way into the houses even up to the fireside.

Patient was taken sick Monday, 13th, with the usual symptoms of grippe: Slight chill, pains in the back and limbs, bilious vomiting, general soreness. A few grains of quinine were given, and the trouble was attributed only to a slight cold. Upon special request patient was persuaded to keep in bed the next day; temperature 102° F. For the next few days temperature ranged from normal to 102°–103°; some days hardly going above normal.

Slight nervousness and inability to sleep were the only symptoms complained of. The patient did not consider herself sick, and insisted every day in getting up. Took a fair amount of nourishment. About the fourth or fifth day, had nausea and sick stomach and vomited once or twice. Insisted upon taking some citrate of magnesia, as the bowels had been obstinately constipated. She took some and the bowels moved three times, the discharges being ordinary yellowish in color; this contained undigested milk and smelled badly. Saturday evening, the seventh day, patient having a desire to evacuate the bowels, got out of bed, contrary to orders, to use the chamber and after a free evacuation collapsed and became apparently lifeless. Was returned to bed, rubbed with hot whiskey, hot bottles applied and, after a time, reaction set in. Pulse went up to 120 and temperature 105°. Ninth day, Sunday, temperature reduced, pulse gradually increased, respirations quickened and the patient began to vomit the characteristic black vomit, which came up without much effort being spat out very much in the same manner as in yellow fever. Pulse and respiration increased and patient died 3 A. M. the morning of the eleventh day.

REMARKS.

Several of the above described symptoms might be more particularly pointed out as differentiating the above condition from anything with which it might be confounded.

The typhoid condition is the one with which it probably is the oftenest confounded, although why it should be is hard to see, as there is no manner of resemblance between them. Constipation generally takes the place of diarrhœa, and when the

latter occurs, it is generally the result of taking purgatives and resembles in no respect the characteristic yellow typhoid stool. There is no marked tenderness over the ileo-cœcal regions, but instead you have marked and persistent tenderness over the liver. The fever range is characteristic and different from either intermittent or typhoid. It may run anywhere from normal to 105°, but often in the gravest cases does not go over 103°, and it has no regular time for remission or intermission. There is wanting the typhoid facies and often the face shows little or no anxiety or concern.

The tongue shows absolutely no indication of a typhoid condition, but in some of the gravest cases is moist, soft and clean up to a short time before death. Headache and inability to sleep are marked symptoms.

PATHOLOGY OF MALIGNANT GRIPPE.

Now a word as to the pathology of the disease, and this is a very important consideration in the discussion of any disease condition, for it is only by possessing a rational idea of the pathological condition that we can hope to intelligently direct treatment. What is the cause of the tendency to failure of heart and respiration? It may be the action of the disease poison upon the nerve centres directly, but taking all the different features of the disease into consideration the following seems to us to be a more probable explanation of this unfortunate tendency.

Every one who has at all studied the disease has noticed the fact of the existence of an abnormal condition of the mucous membranes of the whole body. The alimentary canal, from the mouth to the anus, seems to be in a paretic condition, and digestion is for some time almost *nil*. The liver and excretory organs also seem to be functionally at fault. This condition could be produced either by a disturbance of the vasomotor system supplying the absorbtive, digestive and excretive surfaces, interfering with their proper nutritive supply, or to a direct action on the nutritive nerves which supply these surfaces or areas, the only additional conceivable conditions being a direct anatomical change in the tissues themselves.

As the result of one or more of the above conditions, we have the terrible outflow of Asiatic cholera, and in almost all cases it is secretion or excretion in excess or obeyance, that works the death of the patient. In this case the latter prevails and, between the impoverished condition of the blood and possibly the direct poisonous action of the disease germ, we have necessarily impaired nervous energy in the vital centers with consequent death.

There remains much to learn in regard to the pathology of this mysterious disease, but in the meanwhile, in the name of all the humanities and the dignified science of medicine, let it be recognized, and not in the contentment of ignorance call it malaria, typhoid, remittent, etc.

For until a condition is recognized how can we hope to intelligently cope with it. It is like fighting in the dark with a foe we know not of.

TREATMENT.

This explanation furnishes also a rational method of treatment and proves the correctness of that which has been followed by success. If a sufficient amount of food and stimulants can be absorbed, the patient will get well, if not he will die. Alcohol in some cases has seemed invaluable, in others of very doubtful value if not positively harmful.

Quinine, except in the earliest stages, is a very doubtful remedy and must be handled with the greatest care. In many cases it is doubtful whether it does not do more harm than good by increasing the tendency to cerebral congestion. Antipyrine, antifebrine, phenacetine, *et id omnis genus* are very doubtful remedies and it is like playing with fire to handle them. You don't know what minute you are going to have a case of collapse and then the agonizing question comes up, is it the effect of the disease or the medicine added to the disease?

In many cases very little food is taken or digested for days, and in those cases lemons, oranges, apollinaris, ice and whisky seem to do much toward keeping up the strength.

The infusion of digitalis has seemed to commend itself to me. I have used it in a few cases and intend to try it further, giving it early in the disease with a view of possibly averting the tendency to congestion of the mucous surfaces, by contracting the small vessels and at the same time producing its tonic effect upon the heart. But the medicine of all others,

that has commended itself to me in the general run of grippal cases, is ammon. muriate given often and kept up for a long time.

Especially is it useful where there is catarrhal trouble of the lungs, and it is well to combine it with whisky where this agrees with the patient.

In this day and generation, in the effort to supply a satisfactory reason for all things many important therapeutical points are lost sight of entirely. What matters it how a medicine acts if it has the desired effect? The salts of ammonia have suffered in this respect with other valuable remedies. That they have a powerful effect in stimulating the secretive and absorbent system no one who has practised medicine for forty years doubts. If you have got to wait before using them until you find out exactly how they influence those systems, your patients may all be dead, in the graveyard and the muriate will remain still on your shelves.

One of the most remarkable things about the most malignant cases, is that there is very little lung complication, but the full force of the disease is thrown upon the alimentary canal. I have seen one case where there were marked symptoms of meningeal trouble and congestion at the base of the brain. A fly blister at the nape of the neck gave immediate relief.

CLINICAL LECTURES.

RETARDATION OF BRAIN DEVELOPMENT: GASTRALGIA: DEFECTIVE NUTRITION: LOSS OF MEMORY.

HENRY M. LYMAN, A. M., M. D., Chicago, Ill.*

Gentlemen: This little girl is seven years of age, and we are told that she appeared to be healthy up to the time when she learned to talk. At present, her mother says, she does not talk any more than a child two and a half years of age. She is a mouth-breather. From the fact that she has some affection of the Eustachian tube and middle ear, she does not hear as readily as she ought. When a year and a half old she fell, striking on the top of her head. We do not know whether her present condition is due to that fall or not. There might have been a slight hemorrhage at that time which affected the centre of speech. However, it is a case in which the probabilities are in favor of an injury having been received by the brain at the time of the fall. Furthermore, we are told that the child fell over the bed on to the floor, striking upon its head. The presumption is, under such circumstances, that there was an injury sustained by the brain. She escaped without serious apparent injury at that time, nevertheless that does not detract from the fact that a fall upon the head is a dangerous thing.

We cannot always discover the full extent of the injury that has been received at the time of a fall or blow. A little child came once under my observation, that fell backwards off the first step in front of a house, striking the hind part of the head. The injury, at the time, did not seem very severe, but the child died three months afterward with cerebral symptoms. On making an autopsy a fracture at the base of the skull was found. Another child standing on a chair, fell off upon its head and had hemiplegia as a consequence, which was the result of a rupture of a blood vessel. We could go on multiplying illustrations of the dangers that may be induced by a comparatively slight blow or fall striking upon the head.

In the case before you the injury seems to have produced retardation of development. A slight inflammation — not enough to involve the brain in great danger, but modifying its nutrition and producing a slight local inflammation of the membranes—interfered in some degree with the development of the cortex I

*Professor of the Principles and Practice of Medicine in Rush Medical College.

am speaking now of slight causes that are insufficient to produce characteristic fever, general prostration, compression and death. As a consequence of such meningeal inflammation it is a very minor degree of damage that has been inflicted, but when it involves the cortex of the brain it is sufficient to retard development and to interfere with the acquisition of speech; the child remains permanently backward, and is of a lower intellectual order than it would be under ordinary circumstances.

The child does not talk as much as other children, though that may be due to partial deafness. When a child cannot hear well, it is difficult for it to acquire language. It is an obstacle in the way of rapid intellectual progress. The difficulty of hearing is associated with the difficulty in breathing. There is a narrowing of the nasal passages so that the child is obliged to breathe through its mouth. We have a chronic inflammation involving not only the nasal passages, but the Eustachian tube. It has produced a sub-acute or chronic inflammation that interferes with hearing.

The treatment of this case should be relegated to the care of a aurist. The patient should have such operation performed as is necessary in order to breathe freely through the nose, the inflammation of the Eustachian tube and ear being remedied at the same time. This being done the child will doubtless progress more rapidly, and the brain and all the intellectual faculties will be much more readily educated.

GASTRALGIA.

This seems to be a case in which the complaint is principally gastralgia. The patient is a tolerably well mourished man, married, and has a considerable family of children. He says he does not indulge excessively in sexual intercourse, so that the pain cannot be ascribed, as in many cases it can be, to sexual excesses. There are many patients who complain of gastralgia before they commence to eat, when the stomach is empty. You will find in certain cases it is due to sexual excess, but sexual excess has no further relation to the establishment of such a pain than any other form of excessive exertion. You may meet with the same difficulty in persons who sit up late at night and who do not get enough sleep; in persons who are irregular about their meals, or whose business is such as to cause a great deal of mental anxiety. These are likely after a time to have vague, ill-defined pain located about the epigastrium. You can hardly tell whether it is in the back or side, so generallly diffused is it.

This sort of pain is best relieved by removing the cause. If you can get sleep enough for the patient, can regulate his habits of eating and drinking and sexual indulgence, you will, I dare say, without the use of medicine, secure perfect relief. A valuable means for the mitigation of pain is the administration of a little food, a crust of bread, when an attack comes on. I will relate a case in this connection:

A man suffered with gastralgia and found accidentally that a glass of milk would relieve him of the pain, so accordingly he began to drink milk. When the pain came on he would drink milk, but finally the attacks became so frequent that he carried a bottle of milk in his pocket, and kept drinking it every few minutes until his stomach became enormously dilated, and constantly distended with curd, so that this evil was as great as the first.

You must not rely only upon such simple palliatives. You must find out the cause and govern your treatment accordingly. Patients who use much tobacco suffer with gastralgia, and so do excessive tea or coffee drinkers, after a time. It is a common thing for dressmakers—who go from house to house, who are rather irregular in the matter of eating and drinking and their habits of living, who live poorly on some days and on other days live well, who keep irregular hours—to go home late at night after a hard day's work, and make strong tea and drink several cups of it. They poison themselves with the tea. Headache and gastralgia come from the tea and coffee taken in excess. You must urge them to give up drinking such beverages. It is the opinion of some that the excessive use of tea or coffee produces as much personal misery as the alcoholic habit itself.

This patient says that he smokes from eight to ten cigarettes a day. He is a tailor, and people with sedentary occupations suffer most severely with difficulties of this kind. There is a belief that cigarette smoking is worse than ordinary cigar

smoking. I do not know why that should be so if the quality of the tobacco is the same. We will instruct this patient to discontinue cigarette smoking, to change his habits of exercise, and to go out of doors more, and he will probably improve. To benefit his digestion he may take one quarter of a grain of extract of nux vomica, three times a day, and with it a grain of the extract of gentian. During the paroxysms of pain it may be well to add a grain of hyoscyamus, to be taken three times a day before each meal. A tenth of a grain of aloin, or of podopyllin may be added if the bowels are constipated.

DEFECTIVE NUTRITION.

This boy is fifteen years of age. Three weeks before Christmas, he began to have pain in his stomach. He is and always has been delicate. When two years and a half old, his mother says "he caught cold in the spine and was helpless for seven weeks." He could use his arms, but not the lower extremites. When three and a half years of age, he had cerebro-spinal meningitis, and was laid up three weeks with it. He has complained of headache ever since. His appetite is good, but occasionally he vomits his food. He has had steady aching pains in his joints.

Notice the appearance of the patient. His head is peculiarly formed. Observe the prominence of the scapulæ. There is not perfect retraction of the scapulæ when he attempts to draw the shoulders back. The shoulders lap forward a little. The muscles are full but soft, showing that they are not in a state of contraction. It is not natural for a child's shoulders to droop forward in the manner which you see in this patient. It shows a general weakness of the muscles. The serratus magnus muscle should contract vigorously, and should hold the scapulæ firmly against the thorax. It does not act as it ought to. A chronic weakness is apparent in the abnormal prominence of the scapulæ. The bone is not adapted to the trunk as it should be, yet there does not seem to be actual paralysis present. The vertebræ are a little irregular, and their abnormal position gives to the patient a very hollow-chested appearance, which is fictitious rather than real, being caused by the great prominence of the shoulders rather than by any actual falling in of the anterior thoracic wall.

These symptoms we may account for in part by the attack of cerebro-spinal meningitis which the patient had when he was three and a half years of age, and it is very probable that the nerves were then so damaged that they have not since been able to convey proper trophic impulses and tonic influences to the muscles, so as to keep them in a healthy state; yet there is no complete paralysis. It is damage not destruction, that has occurred.

The pain experienced is very irregular and widely distributed; he also complains of tenderness on pressure. The vasomotor nerves are deficient in tonic power. When I drew my finger over the front of the chest (left side), it was followed by the appearance of a purple line on either side of it. The same appearance can be had on the right side. That is consequent upon a sluggish action of the vasomotor nerves that control the circulation of blood in the skin. It is not an evidence of any specific disease, or of any particular condition other than that of general vasomotor exhaustion. It occurs in various disorders. You see it in the introduction of measles, scarlet fever, tubercular meningitis and diseases generally exhaustive in character. The mother says he wets his bed at night, which is another evidence of nervous irritability. There is nothing characteristic about the respiratory sounds.

The patient does not have the appearance of one who has chronic renal disease. In that disease there is a peculiar pallor. I should hardly expect to find renal disease in this case, but still the urine ought to be examined to ascertain whether there is any disease of the kidneys, and examination shows it to be normal.

The joint troubles are of the nature of aching pains without swelling. You will frequently hear patients complain of "growing pains." "Growing pains" are simply neuralgic pains felt about the joints and sometimes in the muscles of different parts of the body. Sensitive nervous children are liable to neuralgic pain. When it is really rheumatism, it declares itself in the form of difficulty of moving the muscles, a cramp, a torticollis, or something of that kind.

This patient has a slight chorea. There is a little nervous twitching about the

arms. The mother further tells us that he has no desire to sleep. There is no history of rheumatism in the family, nor of tubercular disease; no scrofula, and no eruptions upon the skin. Those facts militate against hereditary syphilis and scrofula.

We do not succeed in putting our fingers upon a definite single lesion or disease, but must take the case as one in which there is a general disorder in nutrition and, consequently, deterioration of health. The shape of the patient's head alone is sufficient to indicate it. The undue prominence of the forehead and the bulging aspect of the head itself are sufficient to mark the case as one of defective nutrition. It is not severe enough to constitute "rickets." There are no syphilitic manifestations. We have evidences of imperfect development of growth and nutrition of the body at large. The history of feeble digestion points in the same direction. When children grow up with bad stomachs it is not to be expected that they will mature normally and healthily as other children do.

Then it is well to observe the expression of countenance. You see how this boy keeps continually wrinkling his forehead. When you see that you inquire into the condition of the eyes. It is due to eye strain sometimes. The patient has difficulty in fixing the eyes upon certain objects. His eyesight is poor. He should have his eyes properly attended to by an experienced oculist, and all defects of vision should be corrected. A large number of these cases are due to a malformation of the skull. Persons with perfectly formed skulls do not have bad eyes. When there is an imperfect development of the skull, there are deformities of the ocular globe. The patient, for instance, may be astigmatic, a condition which interferes with easy, distinct vision. This wrinkling of the forehead must be corrected by proper glasses. Many a child suffers with headache when it has uncorrected ocular defects. Many of these defects can be very much aided—in fact, entirely relieved sometimes—by the use of proper glasses, but it requires careful observation and special delicate adjustment to get glasses that will exactly correct the errors. I know this from my own experience when I commenced to wear glasses a few years ago. I found that a single examination was not enough, that it was necessary to make repeated examinations to correct the defect. Even the oculist himself cannot always tell the exact amount of correction that is necessary. The states of the eye vary from day to day. What is sufficient to-day won't be sufficient next week; so much depends upon the transient states of the nervous system, the amount of tone in the muscles, and the amount of vigor in the nerves which vary from day to day and from week to week; but with intelligent assistance on the part of the patient the oculist can usually succeed in correcting the defect; and the comfort that proper eyeglasses give to such persons must be experienced in order to be thoroughly appreciated.

Now, a great deal can be accomplished for the relief of this patient by proper adjustment of glasses for his eyes; then he must be treated on general principles to invigorate his general health by assisting digestion. The patient must be placed under the most favorable conditions for nutrition, and then little by little, he ought to improve and gradually outgrow many of his defects. Associated with this treatment should be properly arranged methods of gymnastic exercises with dumb-bells and pully weights, that will expand the chest and invigorate those muscles that throw the shoulders back.

LOSS OF MEMORY.

The next patient, a woman, is forty-eight years of age. Nine years ago she was confined, got up within a week and went about her household work for two or three days; then she went to bed and lay there for six weeks in a stupor. She did not have sense enough to nurse the baby. Her parents had to feed her. She has had two children since then, but no such profound stupor. Sometimes, however, she will sit and stare for a long time at nothing. She is weak and now unable to do her housework, and is steadily growing worse. Occasionally she has lucid intervals. She was born in Scotland, and left that country when nineteen years of age. She does not remember the number of the house nor the street she lives on.

A peculiarity which is quite apparent in many cases of deterioration of the memory, is that patients remember incidents of their early life better than those of re-

cent occurrence. The same is true with this patient. She remembers the place where she was born, and of coming to this country when nineteen years of age; but she is not able to give an account of recent events. She is unable to tell us the number of children she has. That is a very interesting characteristic of loss of memory which is dependent upon deterioration of the brain. We see it in a more or less marked degree in all elderly people as they advance in years. Their memory of early life is perfect, but the events of last week or last year are almost forgotten. It is difficult for many elderly people to remember or talk of things that have occurred within the last five or ten years.

Dr. Rush tells us what he observed in the epidemic of yellow fever in Philadelphia, 100 years ago. He had an immense practice and saw a great many patients. Among them were many Swedes who had lived for many years in Philadelphia. Having migrated to this country in early life, they had learned to speak English and consequently had almost forgotten to speak their native language. For fifty years or more they spoke English. He noticed that those old people who were striken with yellow fever would recount incidents in the Swedish language, a language which they had not used for many years. It seemed as if their experiences or impressions of later life had been obliterated and that original impressions came once more to view. When, by age or by certain diseases deterioration of the function of the brain is manifested, the loss of memory shows itself in this way. Then again, the loss of memory declares itself in regard to the names of things and of persons.

With regard to action, it is something that is bound up in our nature. We form habits of walking, of seeing, eating, drinking and of daily life. Our professional occupations become habits that are ingrained in our nature. These things we do not forget as we do the names of things that are arbitrarily fixed. An apple is a sort of sign to designate a certain thing. When the brain becomes deteriorated by disease, and an apple is presented to the patient, she cannot tell you what it is. She has forgotten the name of it. If you let her take the apple in her hand she has not forgotten that it is good to eat. She has not forgotten the action suggested by the sight of the apple. The name goes first, but the action that is connected with the thing is not forgotten. These peculiarities are characteristic of a deteriorated brain, which seems to be the case with the patient before us.

There is some grave disease involving the brain. Nine years ago when the patient gave birth to a child, she passed into a stupor and remained in that condition for six weeks. Whether she had puerperal fever or toxæmia, or not, we do not know. It is not improbable that there may have been some toxic influence operating on the brain that produced the state of stupor that persisted. We know conditions of toxæmia do produce such stupors. It is observed that in certain old cases of cerebral syphilis, patients pass into a state of stupor, the conditions of the brain being induced by various causes of a cachectic character which we do not understand exactly. But the patient is in a cachectic condition and may lapse into a state of stupor and remain in that condition for weeks or months.

Dr. Gardner, of the Glasgow University, has recorded a case in *The London Lancet*, of a woman who remained in a state of stupor for three months, then she emerged from it the same as this patient did. During all that time it was necessary to feed her with a spoon. There was some twitching of the eyelids, and the patient appeared as if she knew that persons were near her. She knew her husband when he came to see her, and manifested her consciousness of his presence by certain motions of the eyelids. But consciousness is absolutely and entirely obliterated in many of these cases. As a consequence of such disorder of the brain cortex having remained after the patient recovers from the state of stupor, it is very apt to leave the brain in a permanently deteriorated state, and the patient may lapse suddenly or gradually into what is called *terminal dementia.*

Dementia is a state in which the patient has perhaps good general health, but the thinking power of the brain is pretty much abolished. The patient lapses into a state approaching that of an animal that is deprived of its cerebrum. The degrees of dementia vary with the profundity of the lapses from the normal standard of

health. That seems to be the case here. The patient is not, perhaps, entirely demented, but is on the way towards terminal dementia.

These cases are also very intractable. It is difficult to cure them, yet they can be relieved, if not entirely cured, sometimes. The method to pursue is forcible feeding. When they are in a state of stupor it becomes necessary to feed them artificially. They must be fed with milk, eggnog, and every kind of food that can be made into a thin paste. It is necessary to feed them in this way sometimes for weeks or months. In addition to forcible feeding, they must be stimulated, and the stimulation which comes from electricity is of a useful character. They may be sometimes aroused by it and saved from the condition of terminal dementia which is almost inevitable otherwise. These cases are hopeful if you can get them to take nourishment in large quantities; especially if, in addition to taking nourishment, they improve in flesh. But, when a patient is conscious and has suffered in this way for nine years, it is doubtful whether complete restoration to health can ever be secured; still it would be advisable to feed her well, to administer arsenic, phosphorus and strychnine. These three agents, which promote nutrition and increase the circulation of the blood in the cortex of the brain, would be useful in this case. A long course of such treatment might produce a good effect.

COMMUNICATIONS.

PARALYSIS OF LARYNGEAL MUSCLES, WITH CASES.

WM. CHEATHAM, M. D.*

The larynx has nine muscles, four pairs and a single. Besides these there are three pairs belonging to the epiglottis—the thyro-epiglottis, inferior aryteno-epiglottis, and the superior aryteno-epiglottis. The posterior crico-arytenoidei widen the aperture of the larynx. The crico-arytenoidei lateralis and the arytenoidœus, assisted by the muscles of the epiglottis and the ary-epiglottis, close the aperture of the larynx. Those governing the pitch of the voice are the crico-thyroidei, assisted by the crico-arytenoidei postici, making the cords tense. The thyro-arytenoidei externi shorten, relax and bring the vocal cords together.

The nerves of the larynx are the superior laryngeal and the inferior or recurrent laryngeal, both branches of the pneumo-gastric. The superior laryngeal supplies the mucous membrane with sensation and the crico-thyroid, the thyro-epiglottic and the ary-epiglottici muscles; the other supplies the other muscles; the ary-tenoidœus receiving fibres from both.

Neuroses of the larynx may be either sensory or motor. Those of sensation may be anæsthesia, hyperæsthesia, paræsthesia and neuralgia.

Gottstein and Lefferts have given a clinical classification of paralysis of the muscles of the larynx, and Mackenzie a pathological one.

I have seen cases of paralysis of the recurrent laryngeal unilateral and bi-lateral, of the adductors unilateral and bi-lateral, of the abductors unilateral and bi-lateral, and of the aryte noidœus.

One case of hysterical paralysis of the adductors, which I believe I reported to this society before, was in the person of a merchant from one of our interior towns. As in most similar cases the muscles of the lips were also involved. A strong interrupted current with one pole in the larynx soon restored him his voice. I have seen several cases in females; some of them hysterical and some catarrhal. Rheumatism may produce it or it may be toxic in character, depending upon lead or arsenic; lead here affects the adductors alone as it does the extensors of the forearm. Anæmia is a common cause. I have seen some times persistent, but more often intermittent, paralysis of one or both adductors in cases of lung phthisis, lasting

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for several years. Diagnosis is usually easily made with the laryngoscope. Prognosis in adductor paralysis is usually favorable. Emotional influences give relief frequently. A brush applied to the larynx or sometimes the simple act of laryngoscopic examination gives relief. Mackanzie cites in his book a case taken from Herodotus, who speaks of a son of Crœsus who was dumb, but whose voice was restored when some one not recognizing his father was about to kill him.

Paralysis of the abductors is a much more serious matter. Here we have the "Gate of life" about to be closed. The cause may be neuropathic or myopathic. In three cases seen by Mackenzie during life, changes were found in the muscles after death, while the nerves and brain were normal.

My object in presenting this paper this evening, is to report four cases. One positively paralysis of the posterior crico-arytenoidei; another I am not so positive of, as it is in the person of a child but six months old, rendering a laryngoscopic examination almost impossible; and two cases of paralysis of the recurrent laryngeal nerves the result of large aortic aneurisms. The last two cases mentioned died in a few days after I saw them, of rupture of the aneurism. In these cases no operative interference was indicated as the cords took the "cadaveric position" in which voice is partially lost but respiration not much interfered with. These are all the cases of this trouble I can recall as having seen.

The child referred to above was brought to me about one week ago. The mother said it had had the trouble all its life. As I stated before, the child is but six months old and its only trouble is on inspiration; expiration is perfectly free; symptoms worse when asleep. The noise it makes then in breathing can be heard all over the house. Its cry and crow are natural; it has no trouble in feeding; the mother says it is as healthy as any other child. After several efforts I could see the epiglottis and the vestibule of the larynx; the epiglottis is an exaggerated omega shape; I could discover no growth of the larynx. A growth of the larynx could give about the same symptoms. I have seen two similar cases in babies, or cases with similar symptoms, which were relieved by pulling the tongue well out, or by holding the children with their faces down; both of these children had trouble in nursing; this child has none. The present symptoms are those indicative of paralysis or paresis of the cord abductors. I have never heard of a congenital case unless this is one. Some one may suggest anæsthesia for a laryngoscopic examination. There would be great danger attending it and any one undertaking it should be prepared for an intubation or a rapid tracheotomy.

The second case is in a woman forty-five years of age, otherwise healthy; she has been examined several times by different doctors and no cause for the abductor paralysis discovered. The trouble has been coming on for months; she has been treated for hysteria, so she says, having taken a gallon or two of asafœtida and valerian; the breathing is so bad at night that policemen have rung the family up and asked if any one was being murdered. When she came to see me about six weeks ago I found expiration free, but inspiration very difficult; voice not much affected; she had had electric and other treatment with no relief. Symptoms made worse by exertion. The laryngoscope gave a perfect picture of paralysis of the post-crico-arytenoidei; the cords were nearly together; the chink enlarged somewhat on expiration, but nearly closed in inspiration; the shape of the cords, and the difference in the rarity of the expired and inspired air accounts for this. I suggested that she again try electricity and add to it hypodermatics of strychnia nitrate; she reported in a few days with her trouble much increased, the cords looked some thickened and red; her lips were a little blue; she could not sleep well but while talking to any one she would fall asleep. Believing the case now to be quite a serious one I suggested to the family either intubation or tracheotomy; they, of course, preferred the former.

This narrowing of the glottis leads to much damage in other organs. This interference of change of gases in the lungs drives the blood back to the right side of the heart, resulting in much damage to distant organs. Intubation was done four weeks ago. I inserted, with but little trouble, an adult hard rubber tube. Vulcanite is better for the adult tubes, especially when used in such a case as this, as there is no membrane to plug them consequently not so

liable to be coughed out, weight to prevent it not being necessary. Calcareous deposits are not as liable to form on them, consequently they can be worn longer without a change being necessary; the weight being so much less, they are not liable to irritate the vestibule. The patient complained a good deal of the tube for several days; said she now gets too much air. There was some soreness on swallowing for a few days. Temperature for four or five days was 100. To-day, Feb. 21st, temperature is normal; there is but little soreness on swallowing, and she says she sleeps better than for months; all drowsiness has disappeared, and color is good. She says she feels like a new woman; she eats solids and semi-solids sitting erect, but has to take fluids with chest lower than the rest of the body.

What is the future of this case? I am inclined to use the intubation tube as long as it can be worn, changing the tube for cleansing and to utilize new points of pressure every four, six or eight weeks, by this hoping in some months to get the cords fixed in the "cadaveric position," or if this can not be done to nick or cut through each cord, then put the tube back. Whether or not this can be done without a preliminary tracheotomy I cannot say. I will of course try it later on. I know of no measure of relief that will not destroy or partially destroy the voice. With the tube in position the patient can now make herself understood across a large bedroom. I believe then that the patient can, should no accident occur, by operative interference get free breathing with partial loss of voice. No book, that I know of, speaks of intubation for the relief of this difficulty. Tracheotomy is advised. Intubation has been successfully used in similar cases by O'Dwyer and others. Dr. O'Dwyer for one of his cases had a cylindrical tube made so as to get more lateral pressure.

These cases are fortunately rare. A majority of them die of their own neglect, refusing operative interference, and others of neglect of their physicians who turn them away as hopeless. A strange coincidence, if the baby's case is one of abductor paralysis, is that both cases live in the same neighborhood, within a square of each other.

Mr. President, while on the floor and speaking of paralysis, I would like to state that in the last ten days I have seen two cases of one sided mydriasis, one of the cases with myosis of the fellow eye, one case of right third and fourth nerve paralysis, one of left third nerve paralysis with atrophy of the right optic nerve, with some of the muscles of deglutition involved, and another with paralysis of the right third, fourth, fifth, and sixth nerves. I also have, besides the patient reported which promises to be a lengthy one for intubation, a child three years old, who has been wearing a tube twenty-three weeks for a growth of the larynx, the tube staying in at one time seven weeks without being changed; and a woman with phthisical laryngitis who has been wearing a tracheotomy tube for nine months with perfect comfort.

TREATMENT OF BILIARY COLIC WITH GLYCERINE.

H. REASONER GEYER, M. D., Norwich, O.

Surgeons are now removing biliary calculi and some successful cases have been reported.

Before so serious an operation is performed all therapeutical means should be exhausted. In many cases surgical interference is not necessary. A patient may have an attack of biliary colic and suffer severe pain, which may be relieved by therapeutical means.

I wish to call the attention of the profession to a remedy which I have been using for the relief of biliary symptoms, and to report the following cases treated with *glycerine.*

Case I. Mrs. H.; widow; age fifty-three; of stout build. The patient has given birth to six children. Health good until menopause, which occurred at the age of forty-five. Since then patient has suffered more or less with various troubles. In January, 1891, the patient had quite a

severe attack which was diagnosed as biliary colic. Subsequently she has suffered recurrences at intervals of about six or seven weeks. Morphine had to be used quite freely to relieve the pain. I was called to see patient in July, 1892, and found her suffering with severe pain in the epigastrium, radiating to right side; also in the back near spinal column. Nausea and vomiting were present. I immediately gave her a tablespoonful of glycerine. The vomiting ceased and in ten minutes the pain was considerably relieved. Repeated the dose in twenty minutes, and in one-half hour from first administration, the patient was free from pain. When relief had been afforded, a severe rigor set in which lasted for some time. Ordered a teaspoonful of glycerine to be given every three hours. Next day the patient was able to be around, and without suffering from the headache and nausea which followed the use of morphine. There was marked tenderness in the region of the gall-bladder, liver somewhat enlarged and patient very much jaundiced. Stools of clay color. Ordered ¼ grain calomel pellets to be given three times a day, until bowels moved freely. In ten days the icterus was gone and the patient well as usual.

In two weeks she had another attack, which I relieved with glycerine in the same manner as above stated. No more attacks occurred until Sept. 30. This was unusually severe. Renewed the glycerine as above described, and relief followed in thirty minutes. Then I ordered

℞ Potass Citrosi.....ʒii
Glycerine.....ʒiv
Sig.—Teaspoonful three times a day.

This was given for a few weeks and now the patient is taking but one teaspoonful a day. Up to the present time, March 1st, 1893, there has been no return of the symptoms.

Case II. Mrs. F.; age 66; married; has given birth to nine children. Health always rugged until menopause. For last ten years has had spells in which she suffered pain in epigastrium with nausea. Vomiting would generally end the attack. On November 4th, I found her suffering severe pain in epigastr um, radiating to right side, very much nauseated, and vomiting quite frequently. From the history of the case and the symptoms present, I diagnosed biliary colic. I gave a teaspoonful of glycerine, repeating the dose in fifteen minutes, and in one-half hour the patient was free from pain.

As soon as the pain subsided the nausea ceased and the patient had a chill. Next day I found her much better; liver slightly enlarged and very tender to pressure in region of gall-bladder. No jaundice present, stools of clay color; senna was ordered to move the bowels and nothing further was given. Soreness remained several days. There has been no return of the symptoms up to date, a period of four months.

Case III. Mrs. B.; age 57; mother of seven children; of spare build, but has always been very rugged. On December 15th, 1892, was called to see her, and found her suffering with severe pain in region of the liver. Nausea and vomiting present. Relieved her with glycerine as stated in Case 1. Next day found tenderness in the region of the gall-bladder. No jaundice, stools clay colored. No return of symptoms so far.

Case IV. Mrs. W.; age 64; has given birth to seven children; sparely built; always enjoyed good health. Has had what she called "cramp colic" several times. Was called to see her in January, 1893. Found her suffering severe pain in the epigastrium, very much nauseated and had vomited several times. Tenderness on pressure in the region of the liver. Relieved her with glycerine as stated in Case 1. Next day I found her much better. No jaundice present. Stools clay colored. Urine very offensive and high colored. Nothing further was given and the patient made a rapid recovery.

Dr. Albert Brubaker says that *Spasmodic Croup* in children, coming on suddenly at night, is often due to impaired digestion brought on by eating some heavy food just before retiring. If the stomach in these cases be emptied by an emetic, it will be found that the croup will also disappear.—*Cal. and Clin. Rec.*

Garlic is the latest remedy guaranteed to cure cholera. This ought to do it, sure! What well-bred and self-respecting bacillus of standing in the pathogenic fraternity could face such an enemy?—*Ex.*

A CASE OF GONORRHŒAL RHEUMATISM.*

A. M. VANCE, M. D., Louisville, Ky.

The patient is a friend I have known for a number of years. Some five or six months ago, he came into my office walking with great difficulty, said he did not know what was the matter, his feet were badly swollen and very painful. I asked him if he had ever suffered an attack of gonorrhœa, and he said yes, that he contracted gonorrhœa about three months previously and had been treated by various physicians, by electricity, etc. I examined him carefully and made up my mind that he had a typical case of so called "gonorrhœal rheumatism." I informed him of this fact and he wanted to know what could be done for it. I gave him a very blue prognosis. He went over to French Lick for a week—as I advised him to take a little rest.

When he came back he went to Dr. Palmer, who cured the gonorrhœa so far as any special symptoms about the genitals were concerned, but his feet were no better. He then employed a homeopathic physician, stating that Dr. Palmer had given large doses of iodide of potassium which he sustained without any bad symptoms at all, and the second doctor told him that his experience was, that when a man could stand such large doses of medicine without any effect, one of the orifices of the body was at fault, either the rectum or the urethra. He examined the penis and finding that all right, made an examination of the rectum and told the man that he found several "folds" or "pockets" which should be removed. He was sent to the Norton Infirmary and the lower part of the rectum excised.

About three months afterward he returned to me, and I found him in even a worse condition than upon his previous visit. I told him that I could not possibly do him any good unless he would take absolute rest; that I thought if he would go to the infirmary for about sixty days, I could benefit him a great deal. He considered the matter for a day or two and finally consented. He went to the infirmary and I put on a pair of plaster boots reaching to his knees, and commenced giving him iodide of potassium. I want to state that he gave a history of syphilis in years gone by and I thought some of the trouble was possibly of a specific character. I gradually increased the dose of iodide of potassium until he took about 400 grains per day, and he progressed very favorably. I also gave him bichloride of mercury in $\frac{1}{30}$th grain doses, keeping him in bed for about thirty days; at the end of that time I removed the plaster boots and found that his feet had returned to their normal condition so far as swelling was concerned. Tenderness had disappeared entirely in the right foot, but the left heel was still tender on pressure. I kept him quiet two weeks longer, and at the end of six weeks he is walking about and I think his ultimate recovery is assured.

The point of consideration in the case with me is, the kind of medicine to be used in these sub-acute and chronic cases of gonorrhœal rheumatism. I believe that iodide of potassium is the proper remedy. The disease is probably a plastic deposit around the nerves and the treatment should be directed to its absorption just as you would in chronic rheumatism or syphilitic deposits. The reason he responded so readily to iodide of potassium may be the fact that the trouble was partly syphilitic in origin, but I have had the same result in other cases where there was no specific element.

*Reported to the Clin. Soc. of Louisville, Jan. 23, 1893.

The Provident Bounty Association, of London, has published a prospectus recommending itself to the patronage of all families, and especially to that of young married couples. Its object is to insure married people against twins and triplets. A married man expecting to become a father, the prospectus states, must deposit £5 to become a policy holder. In case the policy holder's wife has twins, he will receive £50; in case she has triplets, £75. The conditions of issuing policies are simple, and are intended to appeal especially to the lower middle class, including young bookkeepers, shop clerks and small tradesmen.

RUPTURE OF THE UTERUS FOLLOWING ADMINISTRATION OF ERGOT, WITH REPORT OF CASE*

H. H. SUTHERLAND, M. D., Herrington, Kan.

Early in the summer of 1888, I was requested by Mr. C—— to prescribe for his wife. He gave me the following history: Age 28 years; mother of two children, age 5 and 7 years; small; rather delicate constitution, although health previous to last confinement was good; menses irregular, profuse and quite painful, she being obliged to keep her bed several days at each period. She had heavy bearing-down pains in the pelvis, which were aggravated by standing. She suffered one to three attacks of uterine colic during each inter-menstrual period, which confined her to bed one to two days at each attack. With her menstrual trouble and uterine colic she was obliged to keep her room the greater portion of her time, being almost completely invalided.

Although I frequently urged the importance of an examination and a better knowledge of her trouble, the above history was all I could secure.

About February 1st, 1890, she conceived and soon after began vomiting, which continued until she was so reduced in strength that she was no longer able to leave her bed. After trying all known remedies without success I decided, to try cocaine, although at that time I had no knowledge of it being used in like cases. It had the desired effect and, by the judicious use of a weak solution, she was enabled to retain nourishment. In fact, the vomiting almost ceased. But a new difficulty presented itself—ptyalism in its worst form. Any attempt to arrest this would produce nausea and vomiting.

She increased in strength and was fairly well until in May, in the fifth month of pregnancy, she suddenly began flooding and came near losing her life. I was absent at the time, and Dr. N—— was called in. He gave ergot to control the hemorrhage and with partial success. The next day I found the following condition: Flooding came on very suddenly during the night, the bed clothing and mattress were saturated and the blood, passing through, formed a pool on the floor. Patient colorless; pulse very rapid and weak; still bleeding a little; constant ptyalism and a return of the vomiting.

In her exsanguined state, and with a pregnancy of about five months, I believed it would be dangerous to tampon and wait for dilatation. Therefore, I decided at once to dilate and empty the uterus of its contents. Dr. N—— informed me that at first the os was considerably dilated, but that the ergot had caused it to contract. I found it very rigid. After considerable effort I succeeded in introducing two fingers and removed the body of the fœtus, leaving behind the head and placenta. My fingers being tired, I asked Dr. N—— to relieve me. In a few minutes he removed the head and placenta, but, to our surprise, he had broken the skull, and the sharp edges of bone had cut through the anterior wall just inside the internal os, making a utero-vaginal fistula.

Our patient was in a critical condition for the next twenty-four hours; ptyalism continued for two weeks; convalesence was slow and incomplete.

In July she was able to be up and about the house. He health was worse than before the pregnancy. Assisted by Dr. N—— I closed the utero-vaginal fistula and also repaired an old bilateral laceration of the cervix which had occurred during a labor five years previous. Improvement was marked from that time.

At present her health is completely restored, and for more than eighteen months she has done all of her housework —including the washing. Her menses are normal and the attacks of uterine colic have practically ceased. To use her own expression, "life is now worth living."

While there are some who condemn operations on the lacerated cervix, I believe it has done as much to relieve suffering as any other one operation on the female pelvic organs. Had I been permitted to learn the true condition of the cervix and to have repaired the injury, I am confident my patient would have been spared all her trouble, both before and after conception, and would have gone to full term.

*Proceedings of the Western Association of Obstetricians and Gynecologists.

There are a few points of interest:

(1.) The persistent vomiting, controlled by cocaine and followed by ptyalism, which continued for some time after abortion.

(2.) The use of ergot to control hemorrhoge, instead of emptying the uterus of its contents.

(3.) The dangers which may result from the indiscrete use of ergot.

(4.) The danger in crushing the skull in order to remove it.

(5.) The restoration of health; the cessation of uterine colic and menstrual trouble by repairing the previously existing lacerated cervix.

SOCIETY REPORTS.

THE CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting, February 21st, 1893.

Dr. J. M. Krim, Vice President, in the Chair.

CARCINOMA OF THE MAMMÆ.

Dr. W. O. Roberts: The patient from whom this specimen was removed is sixty-seven years of age. Four years ago she had a growth that came on the end of her tongue, which she said when first noticed was as large as a pin's head; it steadily increased in size. One year after its appearance it was removed and was then about the size of the first joint of her little finger. It bled very freely at times. Since its removal there has never been any appearance of the trouble about the tongue.

The growth which I have here was first noticed in the breast last fall a year ago; it was then about as large as an almond; it has steadily increased in size up to the present time, and there is marked retraction of the nipple. Her father died of cancer and two of her sisters have had operations performed for cancer. This tumor occurred without any history of injury whatever. She had, however, in earlier life some trouble with this same breast during the nursing of her children. I do not know how many children she has had, but with each of them she said she had more or less trouble with this breast, but never had an abscess. This case is very much like several others which I have had recently, where there have been several cases in a family of malignant disease.

The breast was entirely removed, of course down to the pectoral muscle; the fascia was carefully dissected up and the axilla thoroughly cleansed.

Last summer, just before the Congress of American Physicians and Surgeons, Dr. John Chiene, of Edinburgh, stopped over in Louisville, on his way to attend the Washington meeting, and he had with him an article from his assistant, Mr. H. J. Stiles, of Edinburgh, concerning the method of determining whether or not all the malignant growth has been removed in an operation for cancer of the breast. I thought possibly it would be of interest to the members of this Society if I would read an account of Mr. Stiles' method. The extract I have here is taken from the "American Text Book of Surgery."

"Mr. H. J. Stiles, of Edinburgh, has recently devised a method for detecting carcinomatous tissue, so that the surgeon at the time of the operation can ascertain whether he has removed all the carcinomatous tissue, or whether some portion still remains in the wound and should be removed. His method is as follows:

(1), Mark the position of the heart by a slight incision extending both on breast and on the skin which is to be left. This is to enable the operator to identify the position, and therefore, the corresponding surfaces of the breast and the wound after the removal of the breast.

(2), Wash the breast in water to remove all traces of blood. This is important, because, after treatment with nitric acid the blood becomes blackened and difficult to remove, and therefore, greatly obscures the appearance which the acid brings out.

(3), Submerge the whole organ in a 5 per cent. aqueous solution of nitric acid, (B. P.) for about ten minutes, that is to say during the time the surgeon is cleaning out the axilla.

(4), Wash in plenty of running water for five minutes.

(5), Place in methylated spirit (undiluted) for two or three minutes.

(6), Examine the whole surface very carefully to ascertain (*a*), whether any part of the tumor is exposed on the surface, or (b), whether any locally disseminated cancer foci are exposed on the cut surface, or (*c*) whether breast tissue is exposed.

The effect of the above given method is to render all carcinomatous tissue and parenchyma dull and opaque white through coagulations of the albumen of the protoplasm of the cancer and epithelial cells. The fibrous tissue of the stroma is rendered gelatinous, translucent and homegenous in appearance and somewhat India-rubber-like in consistence. The fat is unaltered. If any dull opaque spots of carcinoma appear on the under surface of the breast, more tissue must be removed at the corresponding point in the wound. This point is easily determined if the breast has been marked as directed. After examining the surface of the organ it should be cut in thick slices which are to be treated in the same way; thus the various normal and pathological constituents of the mammæ can be readily and most satisfactorily studied. Cancer and parenchyma can be at once detected, if present, upon the cut surface and since the examination can be easily completed before the time for suturing the wound, this method affords the surgeon a valuable aid in ascertaining the limits of the disease, and of the organ.

DISCUSSION.

Dr. A. M. Vance: I would like to ask Dr. Roberts if he tried the method of detecting cancerous tissue in the case reported by him.

Dr. W. O. Roberts: I did not have an opportunity of trying it in this case. Mr. Chiene told me that his assistant was now using it in all his operations, and has great faith in it. I have a great deal of faith in Mr. Chiene and the first opportunity I have, shall try the method.

Dr. Wm. Bailey: I do not know that such a thing would be possible, but it occurs to me if some method could be devised whereby an observation or test could be made of the surface left after removal of the tumor to determine whether any cancerous structure remained—if this could be done in some way without injury to the patient—I think it would be a better thing.

Dr. T. P. Satterwhite: I believe the general rule, whether malignant or not, is to give full scope to all tumors, especially if the growth be of a suspicious character, an abundance of healthy tissue being taken away.

I remember a lady who, a few years ago, had a tumor about the size of a hickory nut in the breast, that gave her some discomfort and a little pain. I do not think her attention was called to it longer than a month before I removed it. I took the specimen to an eminent pathologist in the city, and asked him to make an examination and give me a positive opinion as to its character. He would not give me a positive opinion and I took it to a second pathologist who pronounced it carcinoma without any hesitancy, stating that it not only was cancer, but was an exceedingly malignant form. In removing that tumor I took out a quantity of healthy tissue, removing everything down to the muscle. The wound had no sooner healed than the growth returned; it was again removed, the tumor being no larger than a filbert; in a short time it returned again, showing that the last physician's opinion was correct.

I had a talk with Prudden, of New York, who is considered one of the best and most reliable microscopists in the country, with a view of testing as to whether or not all of the diseased or malignant structure had been removed at the time of operation, and he told me there was no possible way it could be done; that you might have a microscope there while operation was going on, to put a portion of the edges under observation, and yet it was an utter impossibility to tell. So I do not know how surgeons are to determine positively when they have removed all the diseased structure unless the method mentioned by Dr. Roberts is a reliable way.

Dr. Wm. Bailey: I can conceive how the work would be very difficult, because the cells cannot always be recognized under the microscope. It is only by the

arrangement of cells that carcinoma can be detected, and this may not be easily determined in all cases.

I rose to mention a case: Three or four years ago a woman, between forty-five and fifty years of age, came under my observation with a tumor in the breast that gave her some concern, some pain; tumor not much larger than the end of my thumb; it remained there with but very little growth for a year's time; in the meantime the woman became the subject of cancer of the rectum and died from it without further development of the cancer (which I believe it was) of the breast. The development of the growth in the breast was so slow and gave her so little concern that no operation was ever performed for its removal. The fact that the patient died of cancer of the rectum is confirmatory evidence that my diagnosis of cancer of the breast was correct.

Dr. J. M. Krim: I simply wish to mention the case of a woman who has been operated upon three times for cancer, and is still in existence. The first operation was twenty-three years ago when the left breast was removed; about two years afterward the right breast was removed, and I think it was a year later when the growth returned on the left side just below where the breast was excised; this time the tumor was allowed to reach about the size of an orange when it was carefully removed, and she has had no trouble since. Dr. Bayless, at the time, pronounced the structure malignant and evidently it must have been; however, it has been fifteen years since the last growth was removed and there is no evidence of a recurrence now.

Dr. W. O. Roberts: I have very little to say in closing. The only way is to continue to remove tissue until you fail to find evidence of carcinomatous structure. It strikes me that the method I have referred to is about as good as any. Of course it requires a man with some experience to carry on an examination during the time the operation is being performed, one, however, much less expert than would be required to use the microscope with frozen specimens. We endeavor, of course, in all cases to cut well beyond the diseased structures. There are some operators who make what is called a "cart-wheel incision," endeavoring to remove all diseased structures without any view whatever of approximating the surface afterward. There are some who remove all the tissues over the breast, go down and remove the greater part of the pectoral muscle, and then bring a flap up from behind to cover the breast—that is Halstead's method of operating. I think in all cases we should remove all suspicious tissue, and especially clean out the axilla—I believe this is of the most importance.

Dr. Wm. Cheatham presented "Paralysis of the Laryngeal Muscles, with Cases" as the subject for the regular essay. (See page 486).

DISCUSSION.

Dr. Wm. Bailey: One point—that is whether or not obstructions or difficulties of the larynx are not characterized by inspiratory dyspnœa instead of expiratory? I believe it is a fact that as a rule, as you go into a room where a patient is suffering with dyspnœa, you can locate the site of the trouble by observation of the dyspnœa. It is particularly characteristic that there is inspiratory trouble at the larynx, and expiratory trouble with other portions of the passage. We all know that a characteristic of emphysema is trouble in getting air out of the lung, difficulty in expiration. This is also true in obstructed respiration from other causes—if only one act is difficult, respiration is always slower than natural; if both acts are difficult then respiration is hurried. But if the obstruction is at the entrance of the larynx, or if it be emphysema, nature in a conservative manner prolongs the difficult act.

Dr. W. O. Roberts: I would like to ask Dr. Cheatham whether or not this tube his patient is wearing interferes with deglutition?

Dr. Cheatham: No, except for fluids.

SPASMODIC STRICTURE OF THE ŒSOPHAGUS.

Dr. A. M. Vance: I want to mention a case I saw once that has always puzzled me. I was called by Dr. Clements one night to see a little child three years old, that could not swallow. I introduced a stomach tube and put some milk into the child's stomach. I suggested that a trial be made with cocaine spray in the throat and soon discovered that the child

could swallow perfectly just after the cocaine was used. For a number of days each time the throat was sprayed with cocaine, the child could swallow with comparative ease. It soon irritated the throat so that it became sore. The child afterward died of pneumonia. I have often wondered whether there was some form of paralysis preventing the child from swallowing, or whether there was some neurotic condition which the cocaine relieved temporarily.

DISCUSSION.

DR. CHEATHAM: I have no doubt the case reported by Dr. Vance was spasmodic stricture, which was relieved by the cocaine.

Referring to Dr. Bailey's remarks: I have seen several cases of this kind where the trouble was in expiration, though, possibly as a rule the difficulty is in inspiration.

CASE OF BRAIN SYPHILIS.

DR. W. O. ROBERTS: I have a patient who is now forty-eight years of age. Twenty-five years ago he contracted syphilis. I saw him during the tertiary period of the disease, and he had very large and very extensive ulcerations of the soft structures of the extremities. I remember distinctly, one upon the elbow joint which involved the tendon of the triceps muscle. He had very large nodes on both tibia. He was under treatment with iodide of potassium, also some mercury for something over a year, and all the symptoms disappeared. He went to a distant city and remained for several years—probably a period of ten years. He returned suffering from asthma; it was so bad that he had great difficulty in breathing—could not go up steps or take any exertion without getting entirely out of breath. Under iodide of potassium these symptoms entirely disappeared. There was no valvular disease of the heart; no evidence of urinary or kidney disease. He suffered at the time he had asthma, from indigestion and he still complains of that trouble. A year ago he had most terrific headaches, and I thought at the time that they were possibly due to grippe. He was treated for that without benefit. Finally I put him on iodide of potassium which gave entire relief. After quitting the iodide for a period of six months, a node appeared on the forehead about as large as the first joint of my thumb. He was put back on iodide and this passed away and left a depression which can be easily seen at some little distance. He has had no headache for some time. A day or two after eating a hearty dinner, without any especial dyspeptic symptoms following at the time, he was taken with a well-marked attack of epilepsy, coming on by the jerking of one hand, finally shaking all over, then becoming unconscious, biting his tongue, frothing at the mouth and all the symptoms of well-marked epilepsy.

Upon inquiry I found that years ago while out West, he had a number of dizzy spells, but at no time lost consciousness, and within the last year he has had a number of these attacks, taking them to be simply vertigo from indigestion.

The question I want to ask is whether or not this epileptic attack is the result of brain syphilis; whether epilepsy occurs in a person of that age, except as a result of injury or structural disease of the brain.

DISCUSSION.

DR. W. P. SATTERWHITE: I should infer from his having had these severe symptoms of tertiary syphilis, that the present trouble is due to that cause.

DR. WM. BAILEY: There are several very interesting things in this connection, and I want to say this much in regard to the asthmatic attack—the relief by iodide of potassium of the asthma does not prove the syphilitic origin of the case, because iodide of potassium is the best known treatment for asthma. It will relieve more cases than almost anything else. I do not believe as a rule epilepsy occurs in a person of this age, but this man may have been subject of *petit mal* without knowing what it was.

I remember seeing a case with which Dr. Roberts is familiar, which I will mention in this connection: One evening after having eaten an enormous dinner, a man over fifty years of age had two attacks that were very much like epilepsy. He had no recurrence, and I thought the safety to him was by virtue of his age, and that perhaps it was brought on by disturbed circulation from over eating; he had been in bad health for months and had not at that time very fully recovered. This case goes to confirm my opinion that it is still very doubtful about the cure of syphilis. How are we to know when a

man is cured of this disease; when a man has gone practically for years and years without any new history, comes out again with decided manifestations of syphilis. We have by means of treatment with mercury and iodide of potassium brought it into subjection, so that for many years it may not manifest itself, but I have seen so many cases where after ten, fifteen and twenty years, symptoms develop again, that I have a little doubt whether we can be very sure about the absolute cure. I think I saw two sisters die neither of whom had any symptoms of syphilis for thirty years; both died apparently of brain syphilis. This disease is very difficult to eradicate, and we never know whether it has been done or not.

WESTERN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Annual Meeting: Kansas City, Missouri, December 27th, 1892.

[OFFICIAL REPORT]

Dr. Van Eman's paper. (See page 408.)

DISCUSSION.

DR. SHELDON: It seems to me, Mr. President, that the mere point of location of fecundation is not sufficient explanation for an adherent placenta. Whether it was at or near the mouth of the Fallopian tubes, or whether it was further within the body of the uterus, had there been no other factor, I think it would not have been sufficient to have produced the adherent condition. I take it that the class of adherent placentas to which the doctor has referred, is usually, if not always, caused by inflammation that has existed either as endometritis or as placentitis. One or both of those conditions must have taken place. This woman felt a pain in that locality during the whole of pregnancy. I think that is often, if not always, the case. There has been a low, sub-acute or chronic condition of inflammation, and new tissue has been formed connecting the placenta and the wall of the uterus. It has gone even further than that, and in some cases, where there has been extensive adhesions of the placenta, the muscular fibres have been often reproduced, extending from the muscular fibres of the womb into the placenta. As a rule, the new tissue is connective tissue, but we get another condition sometimes where the myoblasts or the fixed cells of muscles are reproduced, or reproduce themselves, until we get a muscular tissue extending from the wall of the uterus to the placenta.

Of course, we have many other causes for retained placenta, but I know of no other causes of adherent placenta, and the paper, it seems to me, should have been entitled, "Unusual Cause For Adherent Placenta," and not for retained placenta.

We may have retained placenta from irregular contraction. The circular fibres of the womb near the internal os or further up, make what is often called a "hour-glass" contraction. You may find it sometimes as the result of giving large doses of ergot. But we do not have an adherent placenta unless we have a formation of new tissue as the result of inflammatory action. I take it that the process which we call inflammation, in this condition as well as any other part of the body, is a physiological condition, and that it is an effort of Nature to repair a certain injury that has been done either to the placenta or to the endometrium, or to the walls of the uterus itself. There has been some injury done, either by some toxic germ or some traumatism, perhaps, or from some other cause, and Nature, in an effort to repair that injury, has formed new tissue and the new tissue forms the adherent condition that we find in these cases of retained placenta.

DR. LANGWORTHY: It seems to me that the gentleman in discussing the paper just read, and in giving the theory of inflammatory action as explaining the cause of retained placenta, has lost sight of the fact that the writer stated in his paper that this placenta was contained largely in the widely distended Fallopian tube. Now then, the gradual distension of this tube by the growth of the placenta would fully account for the pain which the patient experienced, leaving out any acute or sub-acute inflammation. It seems to me that a point in the paper has

been lost sight of, and that is, that it accounts for this retention by the hypothesis that the fixation took place in the tube instead of in the uterus in the usual manner; and the whole argument hinges upon the one theory that fixation takes place at the moment of fecundation. I once heard a scientist in discussing the theory of evolution, say he would like very much to believe that theory because it so nicely explained a great many things; but, unfortunately, there were some reasons why he could not believe it. Now whether there are any reasons why we cannot believe that fixation takes place at the moment of fecundation, I am not prepared to say; but the doctor, by this theory that fixation takes place at the moment of fecundation, very nicely explains the phenomena of abdominal pregnancy and, in the case of tubal pregnancy, that the placenta is adherent in the Fallopian tubes and various other phenomena in connection with this. I merely call attention to that point.

Dr. Shreves: I think Dr. Van Eman and Dr. Sheldon are both correct in that it is not doubted that attachments are caused by inflammatory action. The simple fact that the conception took place in the uterine end of the Fallopian tube, and the distention of that tube being gradual, would of itself create an inflammatory action sufficient to cause adhesion. I believe that Dr. Van Eman is correct, that there is the spot where the ovum and spermatozoa came in contact and that there the attachment is first formed. In the past five years I have had two cases similar except, that in one of them there was an hour-glass contraction with an attachment in a funnel-shape pouch at the uterine end of the Fallopian tube. I could pass my finger very readily into the tube and it was a perfect funnel-shape, and there was where the attachment was in both cases. One was simply a retention with a very slight attachment at that point, and in the other there was extensive adhesion coupled with an hour-glass contraction. At the removal of each placenta I was extremely careful to examine the opposite cornus of the uterus, and I found everything in a normal condition, but the complete funnel-shaped pouch in the right side of each case.

Dr. Lanphear: As a student of pathology, and not as an obstetrician, I beg to call attention to the fact that inflammation does not occur from simple irritation, from the presence of a fetus, or any other body. Inflammation is of itself infective in origin. There cannot be inflammation without an infective process going on. That is a fundamental principle of modern surgical pathology. Therefore the mere presence of the fetus in the Fallopian tube does not inflame and cannot excite inflammation. Where apparent inflammatory processes are present it is where rupture has occurred and where nature has attempted a repairative process, but in that process of repair, inflammation does not take any part unless there is infection from some outside source.

Dr. Sheldon: Allow me to ask what you mean by infection—that you can't have inflammation without infection?

Dr. Lanphear: I mean to say this, that inflammation never comes from simple irritation; that is, there must be infection from gonorrhœa, from sepsis, from something outside, or possibly, from the presence of destructive pus from the inside; but there is no such a thing as inflammation arising simply from the presence of the fetus, or anything else that is not implicated with the infective material, septic or otherwise.

Dr. Sheldon: It seems to me that I am not ready yet to accept the theory advanced by Dr. Lanphear, that we cannot have inflammation without infection. If I understand pathology correctly, the condition that we call inflammation and the condition that we denominate repair of tissue are indentical.

I take the position that, so far as we know, there was no infection in this case, but there was a condition of repair and formation of new tissue. I take this to be a pathological fact that each tissue reproduces itself and nothing else—reproduces itself or a similar substance histologically. Now, as I said before and as the doctor found here, there was new connective tissue that had formed between the endometrium and the placenta and that, of course, extended up into the tube; it matters not where it was, but that was the condition that he found. And this new tissue had been developed from connective tissue cells, but there is no indication that there had

been any infection there. Take, if you please, a simple incised wound or a simple contused wound, and perhaps that is what the doctor had here. He might have had traumatism; we don't know. But there was something that had injured the tissues there, and nature had set up an effort to repair that injury. We get the same thing when we have a wound; we get an increased hyperæmic condition; we have more or less swelling of the parts; we have effusion of the leucocytes and blood serum in the tissues that are to be repaired. Nature makes all this effort, and in this effort new tissue is produced from the existing fixed cells. Now, in subcutaneous incised and contused wounds we don't have any infection that we know of. I don't think it can be proven that we have, but we have a condition that we call inflammation, or a condition which I and others are pleased to call, a condition of repair. That noted surgeon of Philadelphia, Dr. Roberts, says that inflammation is a physiological condition, that it is an effort of nature to repair injured tissue. Those are not his words exactly but those are his sentiments. Senn says, in his work on surgical bacteriology, that inflammation is a physiological process, an effort that nature makes to repair injured tissue, etc. Almost identically the same words are used by those two authors; and nowhere, can I find a statement that it is necessary to have infection by some germ, or whatever it may be, in order to have inflammation.

Dr. Van Eman: The first objection that I hear, is that the title of the paper should read "adherent" and not "retained." I haven't any objection whatever to changing the title.

Now as to the cause; possibly there was inflammation there; possibly, on the other hand, nature found something was wrong and undertook to wall the thing in. That is theoretical.

The woman was delivered, and inside of twenty-four hours, in spite of every cleanliness, she has developed every evidence of septicæmia; there is constitutional disturbance and everything else. It may be she was infected by the doctor, and it may be she had infected material in the Fallopian tube for which the doctor was not responsible at all. If a man falls down in going home and gives his ankle a violent wrench and goes to bed and, if he goes to sleep at all, wakes up in the morning with it swollen the size of two or three ankles, there is certainly inflammation there, but whether it is from germs or not I don't know. Now when this placenta was retained, it hadn't anything whatever to do with inflammation. There was nothing in the paper about inflammation; I have not been discussing the question of inflammation and I do not propose to discuss it now. But I wish to say that during the second stage of labor, the voluntary muscles aided very little in the expulsion of the fœtus, that is in bringing it down into the vagina—and that was very largely caused from this placental adhesion acting as a splint to one side of the uterus, preventing the contractions and making them irregular. Now had this been simply an adherent placenta without any abnormal location of any portion of it, those contractions were certainly firm enough to have pulled it loose from the uterine wall, as is done in every case of delivery, whether it be normal or abnormal. It didn't do it simply because a large portion of the placenta laid out in the funnel shaped extremity of this tube, and the uterine walls were dilated by it and hadn't any power to contract and express. It was just simply held up there as if it had been tied, or occluded or set in there. Had this woman been so unfortunate as to have fixation of the ovum take place further out, we would have had the same funnel-shaped dilation of the tube but different results. Now it was simply funnel-shape here, but had no contractile power; even if the uterus did contract on it, it simply shut down. The moment I got my two fingers in there and worked around and detached it, my hand and the placenta were promptly expelled. It dosen't make any difference so far as this paper is concerned, whether the woman had inflammation or not.

As to the history of the case; I didn't wait upon her in her two previous labors, but I had known her more or less since her marriage. She came under my observation about the fourth month of her pregnancy; she had been to half a dozen doctors and some said she was pregnant and some said she was not. I decided she was and the results proved it. In five months more I delivered her—assisted in delivering her rather.

Now the reason why this placenta was

retained; it was simply grasped as you grasp a hand, and if it had not been that those contractions were exceedingly powerful—she was a very strong woman—if it had not been for those powerful contractions it would have been expelled very promptly. There is no resemblance between this case and the hour-glass contraction, except that possibly you might have an hour-glass contraction following. All I have to say is that in the hour-glass contraction, twenty-five years ago when I studied medicine I was instructed to give ergot; I wasn't even told not to give it. In primiparæ I was to give ergot; if I got tired, instead of putting on the forceps, I was to give ergot. And I want to say right here that the man that calls himself a doctor and has so little judgment that he would put on the forceps to get away, or put on the forceps in the condition described by Dr. Price, isn't fit to look inside of a lying-in room, much less to take charge of a patient. After awhile I found that ergot wasn't to be given indiscriminately; and I had more hour-glass contractions when I gave ergot than I have since without giving ergot. But the man who gives ergot without reference to the stage of labor because somebody else gives ergot, and doesn't make any use of his brains, will have plenty of hour-glass contractions and plenty of retained placenta, whether they are adherent or not.

Pregnancy and Ovarian Tumor.

Dr. Wm. Gardner (*Montreal Medical Journal*) says:

The association of pregnancy and ovarian tumor, if left to nature, is fraught with danger to the woman, whether the termination be premature, or at full term. When left to nature, abortion or premature labor may occur, in either case with frequently fatal results to the mother.

When the case proceeds to labor at full term, the result to the mother may be rupture or such other injury to the tumor that fatal peritonitis carries her off.

Tapping of the tumor, while it may temporarily relieve tension, is by no means free from danger by injury to the uterus, or otherwise, and it does not cure the patient.

Ovariotomy with modern precautions is nearly as safe as in the non-gravid condition of the uterus, while the woman is at once cured of a disease which must ultimately demand operation.

The second case here related shows that serious complications such as torsion of the pedicle and consequent peritonitis with adhesions, necessitating the use of the drainage tube for so long a period as five days, does not necessarily lead to abortion.

Ovariotomy in the present status of surgery, in the great majority of cases, must be the only proper treatment, and is often urgently demanded to relieve tension.

The indication for the operation in the case of small abdominal tumors is even more urgent, because of their great liability to torsion of the pedicle; and in the case of the pelvic tumors, by reason of the almost certain rupture or necrosis from compression during labor.

Mark Twain, says an exchange, was at one time director of an accident insurance company, and being called upon at an entertainment in London to make a speech, introduced the following allusions in his remarks: "Certainly there is no nobler field for human effort than the insurance line of business—especially accident insurance. Ever since I have been a director in an accident insurance company I have felt that I am a better man. Life has seemed more precious. Accidents have assumed a kinder aspect. Distressing special providences have lost half their horror. I look upon a cripple now with affectionate interest—as an advertisement. I do not seem to care for poetry any more. I do not care for politics—even agriculture does not excite me. But to me, now, there is a charm about a railway collision that is unspeakable.

There is nothing more beneficent than accident insurance. I have seen an entire family lifted out of poverty and into affluence by a simple boon of a broken leg. I have had people come to me on crutches, with tears in their eyes, to bless this beneficent institution. In all my experience in life, I have seen nothing so seraphic as the look that comes into a freshly mutilated man's face when he feels in his vest pocket with his remaining hand and finds his accident ticket all right. And I have seen nothing so sad as the look that came into another splintered customer's face when he couldn't collect on a wooden leg.

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SATURDAY, APRIL 1ST, 1893.

EDITORIAL.

ANÆSTHESIA.

The New York daily papers, of the 26th of March, contained a statement over the names of the attending surgeons, and made, it is said at the request of the family and friends of Col. Elliot F. Shepard, concerning the death of the latter under ether. The statement is substantially as follows: On Friday afternoon, March 24th, ether was administered to Mr. Shepard with a view of exploring the bladder for stone and, if practicable, removal of the calculus. The statement is that ether was begun at 12.45 P. M. and that for a few moments he inhaled "uncommonly well, his breathing being full and free." Afterwards (time not stated) "his color changed somewhat and it was apparent that he was nauseated. In another moment he vomited. After this his color was better, but as his respirations were not satisfactory, nor his pulse, the further administration of the anæsthetic was discontinued. As yet not enough ether had been given to admit of proceeding with the proposed operation." . . . . ."The breathing continuing very labored, an examination was made of the larynx to determine whether possibly some article of food had lodged in it, but such proved not to be the case."

"The patient's condition was now so alarming as to call for extreme measures, and in hope that the symptoms might be due to the presence in the wind-pipe of vomited material accidentally inhaled, the operation of tracheotomy . . . . . was performed. No foreign material of any kind was found and we *even passed a rubber tube down the wind-pipe and into the bronchial tubes, making use of a powerful aspirating syringe* without discovering the presence of anything but bloody mucous."

Oxygen was used "and under its influence the patient slightly revived." "Artificial respiration, and every other means which might possibly give relief, was resorted to." "From this time on his breathing became even more embarrassed, but still artificial respiration was contin-

uously kept up although the pulse became steadily more feeble."

"He sank rapidly into unconsciousness, and, in spite of all efforts, died at ten minutes after 4 o'clock. In our opinion Col. Shepard died of sudden œdema and congestion of the lungs following the administration of ether, but, primarily, due to some cause unknown to us."

(Signed) JAMES W. MCLANE,
CHAS. MCBURNEY, M. D.

This statement, while prepared for the public press and not for the profession probably covers the matter sufficiently to justify comment. The names attached to the statement are sufficient guarantee of the skill and ability that would be applied to avert such a calamity by every known means that could be made available. The statement gives the impression that death was due to ether, certainly as the exciting cause. Can this death be justly ascribed to ether? The diagnosis of œdema of the lungs was made apparently on physical examination alone; no *post-mortem* was made and, in the absence of any technical description of the case, we are left in doubt as to the true cause of death.

It would certainly be most extraordinary for œdema or congestion of such proportions and rapid fatality, to result from the inhalation of ether given over so short a period of time that the patient was not sufficiently anæsthetized to permit of starting the operation. Bronchorrhœa is an ordinary complication, but in such proportions as to prove fatal as in this case is unheard of. To us it would seem more probable that an apoplexy had taken place in the brain. And before charging the death to the account of ether, it would be well to know just how the ether was administered.

This unfortunate occurrance serves to strongly emphasize the fact that anæsthesia is *never without danger.*

Mountains of words have recently been piled up concerning anæsthetics and their physiological actions. The researches and the discussions of the Hyderabad Commission have been published throughout the world, and the ultimate result appears to be an irreconcilable conflict as to whether chloroform kills by paralyzing the heart or the respiratory centers first. Ether as an anæsthetic was practically ignored.

But the every day practitioner does not care so much to learn how to kill his patients by anæsthetics, as he does glow to extend to them the blessings of necessary unconsciousness with the greatest security to their lives and welfare. The ideal anæsthetic—that which will suspend all functions but life itself; that, without any disagreeable coincidences or consequences, will allow the patient to come out from its influence in a better condition than before going under; that no organic disease of brain, heart, kidney or lungs will offer contra-indication to its use; that will act instantaneously and alike in all classes and conditions—the ideal anæsthetic has not yet been discovered, and probably never will be until time has passed into the millenium.

In the meanwhile, it behooves us to use the agents at our command with discretion and pains-taking care. Experience both as an anæsthetizer and as an operator has lead to the following general conclusions: Everything taken into consideration, ether is the desirable anæsthetic for use in general work. The principal objection urged against it, *i. e*, its irritant action upon the kidney and consequent contra-indication where kidney disease exists, is much more apparent than real. Certainly we would prefer to take the risk of the effects of ether on the kidney rather than to take the chances of using chloroform with its attendant and multiform dangers.

The successful use of ether depends on the anæsthetizer and the quality of the ether used. Possibly many of the

lives that have been lost under chloroform, and probably most of those lost under ether, might have been saved had the fact being recognized that the anæsthetizer is a factor of importance not inferior to the operator himself. If it were more generally realized that it is the *anæsthetizer* who, in ninety-nine cases out of a hundred, holds the life of the patient absolutely in his hands, and that with *him* rests the present issue of life or death, the custom of entrusting this duty to the hands of the least experienced and youngest man available would be relegated to the limbo of the relief of barbarism, and the mortality lists of operators would show a marked decrease in death from "shock." It is not often the operator loses a case "*on the table.*" Not infrequently does he lose his patient from "surgical shock," which might well be called "*drowning by anæsthetics.*"

The anæsthetizer must be pre-eminently a man of common sense. He should appreciate his responsibility, and if he does this he will know, see or hear nothing but the condition of the patient whose life ebbs or flows at his will. He has absolutely no business to know what is taking place apart from his own duties. He must possess confidence in himself, and be able to inspire his patient. Almost always he can gain a control over the will of the patient that will very materially aid in the successful performance of his office. His responsibility begins with his first introduction to the patient and does not end until the patient has safely recovered consciousness.

Of importance also is the *quality* of the drug used. Experience has shown that ether kept for a long time in a drug store, exposed to light or not hermetically sealed, will deteriorate. If it is not deterioration it is adulteration. Sulphuric ether, thoroughly washed and put up in sealed cans, is said to keep indefinitely. One accustomed to the use of ether can readily detect by the effect upon himself and the rapidity of evaporation, whether the drug is effective or not. Sulphuric ether unless thoroughly washed is potent for producing the distressing after effects of ether sickness.

The *quantity* of the drug used is immaterial. It is the effect upon the patient that is essential.

Patients who suffer from bronchorrhea are most apt to have the after sickness. Alcoholics are less susceptible to the effects of ether and more difficult to manage than are those free from the influence of alcohol. Ether acts more quickly and produces less ether sickness in patients who have nothing in the stomach, and whose bowel has been thoroughly emptied previous to receiving the anæsthetic. Abstinence from food or drink for twenty-four or more hours after anæsthesia will prevent much of the after sickness. Where retching is uncontrolable the use of small quantities of hot water to afford the stomach something to dispose of, will generally stop the distressing condition.

Strychnia administered hypodermatically is the best and safest stimulant where profound depression requires its use.

Of the greatest importance, and the end to be unceasingly sought for by every administrator of anæsthetics, is that condition, the golden mean between consciousness on the one hand and coma on the other. No one indication holds good for all cases. Muscular reflexes are snares for the unwary. The sensativeness of the conjunctiva is absolutely valueless. An experienced anæsthetizer can often estimate the degree of unconsciousness by the reactions of the pupils to light. But it is not at all a safe criterion.

But there is one indication that applies to the vast majority of patients under anæsthesia, and is the most reliable of all signs for estimating the degree

of the condition: If a patient has passed into the third stage of anæsthesia—the stage of the abolition of all voluntary muscular effort, the reflexes inhibited and complete relaxation obtaining—now, if the ether be withdrawn for a short time and then readministered, the patient will show the signs of irritation in the throat by the *motions of swallowing* and, if the ether has been withdrawn too long, by choking. This point, *where the addition of a little fresh ether will cause these efforts at swallowing*, is the land mark by which to gauge the depth of anæsthesia.

It is the line where the second merges into the third stage of unconsciousness. Sensation is abolished, muscular relaxation is established and all the senses are held in abeyance. The complete withdrawal of ether will allow speedy reaction; the addition of fresh ether will deepen the unconsciousness. A safe rule, therefore, is to try the effects of a little fresh ether frequently, *and if it produces no signs of irritation in the throat, withdraw it.* The anæsthesia is sufficient. If, however, fresh ether *produces the evidences of irritation, continue the administration until fresh ether will not cause the signs.* If this is not done the patient will continue to regain consciousness, with the undesirable effects of muscular resistance, etc.

Never forget that many patients will pass through the first and second stages with considerable resistance and excitement, and, reaching the third stage, will plunge into a coma so profound as to excite alarm.

Anæsthesia should always be administered with due regard to personal idiosyncracies of the patient. Always with gentleness and encouragement to the patient; never rudely or suddenly. The mental impression has much to do with the ultimate results.

In certain major operations, for instance an hysterectomy, where the removal of a member entails profound shock, the shock may be very much lessened by deepening the coma at the instant of removal.

Simplicity in every detail; exclusive devotion to his duty on the part of the etherizer; a constant realization that his actual responsibility is equal if not superior to that of his principal, and the guidance of all action by hard common sense are elements necessary to qualify one for success as an anæsthetizer. Unfortunately comparatively few physicians are capable of safely administering an anæsthetic, and this, too, without any excuse whatsoever.

As medical men realize the vital responsibility attaching to this office and adjust themselves accordingly, the number of deaths alleged to be due to anæsthetics including the treacherous chloroform, will very markedly diminish, and those deaths from the water-logging of the system yclept *shock* will exist only in the records of the past.

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*Dr. V. R. Hacker reports that in the clinic of Billroth during the last ten years there were treated in all 41,366 patients. Among these were 270 suffering from diseases of the œsophagus. Of these, 131 cases (114 males, 17 females) from carcinoma, 47 cases of stricture due to cauterants, chiefly lye (18 males and 29 females.) The results of the cases of cauterization were as follows: One-third at least died from the direct poisonous results of cauterants taken with suicidal intent. Those cases following the use of lye one-fourth proved fatal, and more than one-half died from sulphuric acid poisoning. Those who recovered from the first effects of the lye poisoning more than 50 per cent. suffered from grave stricture, the remainder having milder forms of stricture. More than one-third of those who survived the sulphuric acid poisoning suffered from grave strictures. —*Schmidt's Jahrbucher*, Bd. 237, No. 1.

*Translated for The Medical and Surgical Reporter by Marie B. Werner, M. D.

TRANSLATIONS.

AN OPERATIVE PROCEDURE APPLICABLE TO LARGE PUS TUBES CLOSELY ADHERENT TO THE UTERUS.†

Chaput (*Jour. de Méd. de Paris*, Jan. 15, 1893) remarks that the treatment of pelvic suppuration remains the order of the day. Some, including Péan and Segond, persist in performing vaginal hysterectomy in preference to laparotomy for all cases of bilateral suppuration; others, represented by Pozzi, le Denter, Terrillon, Championnière, Terrier, etc., claim that hysterectomy should only exceptionally be performed, reserving all their sympathies for laparotomy. Chaput classes himself with the latter writers, and only undertakes hysterectomy when he recognizes, after opening the abdomen, that ablation by the other method is absolutely impossible. He also prefers hysterectomy when there are purulent fistulæ opening into the bladder, vagina or rectum. He regards hysterectomy as an operation full of dangers and disagreeable surprises; patients are often lost by hemorrhages and, moreover, septicæmia is the principal cause of death, and it appears more frequently than in laparotomy. Hysterectomy also exposes the small intestines, the pelvic colon, the rectum and, at times, the cecum to the danger of being wounded; the uterus, and especially the bladder, are often perforated. Finally vaginal hysterectomy leaves in the abdomen the entire sacs, open or intact, and it must be remembered that the subsequent treatment of this operation is difficult and delicate. Without much danger of septicæmia, laparotomy does not expose the viscera to the danger of wounds; it usually permits of complete ablation of the disease and the after-treatment is particularly simple.

Chaput calls attention to a serious complication in which the tubes adhere strongly to the uterus, and cannot be separated without the risk of a hemorrhage very difficult to control. In a case of this kind he follows a technique which he deems of sufficient interest to report in detail. The history of a case of this class is as follows: A woman, 38 years old, menstruated at sixteen normally. At 23, she was delivered of a child without any attendant complications. She nursed her child for one year although the menses returned normally at the end of three months. At 26, she had a miscarriage from which she appeared to recover rapidly and completely. There were no clear proofs of gonorrhœa. She commenced to suffer from uterine disease in July, 1892; at that time she was seized with violent pains in the right iliac fossa, propagated to the thigh. From this time she suffered constantly in the abdomen and thighs; her menses lasted fifteen days and were abundant and painful. During the fifteen days that followed there existed a very abundant leucorrhœa. On her entrance into the hospital on September 26, 1892, the patient was anæmic but not emaciated, and her general condition remained satisfactory. The abdomen was voluminous. On abdominal palpation a median tumor was noted extending nearly to the umbilicus, the surface of which was smooth and regular, the consistence very hard and the dullness absolute. There was no ascites. To the touch the cervix was found to be very voluminous, hard, regular; the orifice was a little patulous. The neck, very much contracted, was continuous with a hard voluminous tumor, filling the cul-de-sac, and which appeared to occupy the body of the uterus and to lose itself in the mass observed by abdominal palpatation. The mobility of the tumor was almost nil. Impulses communicated to the abdominal mass were transmitted feebly, but clearly to the uterine cervix. Chaput inclined to the diagnosis of salpingitis rather than fibroma, basing his views especially upon the considerable fixity of the tumor which did not appear immobilized by its volume, and because there were no symptoms of vesical or rectal compression. The urine was normal, cystitis did not exist, nor frequent micturition, nor was constipation present.

He decided to perform a laparotomy in preference to a vaginal hysterectomy, (1), because of the obscurity of the diagnosis; (2), because in case it were a fibroma, there

†Translated for The Medical and Surgical Reporter, by W. A. N. Dorland, M. D.

was a good chance of being able to perform castration, a simple, benign, and efficacious operation. The operation was performed and an enormous collection of pus found in the tube. This was aspirated with Potain's apparatus. It was very fetid, grumous, and amounted to about 250 grammes. A large quantity remained in the sac. During the process of enucleation of this sac, it ruptured into the pelvis; sponges, however, were placed to prevent inundation of the large peritoneal cavity. The sac being very sessile the membrane pedicle was divided into two portions, after which the sac was drawn out. It was then found that the tumor was strongly adherent to the pelvic colon, the adhesions being so intimate that they had to be severed by scissors. The sac was also adherent to the right side of the uterus and decortication left a large bleeding surface which rendered supra-vaginal amputation indispensable.

It was decided therefore, to do this, but after vertical section of the uterus through its entire length. This section presents the following advantages: the pedicle of the uterus is less voluminous, being divided, therefore more easy to treat. Moreover, the medium section being prolonged below, the vagina is opened and it becomes easy to establish an abdomino-vaginal drainage the employment of which is formally indicated on account of the issue of pus in the peritoneum. The total median section is followed by only an insignificant exudation of blood.

In the case quoted, to the left there existed a suppurating salpingitis up, the broad ligament cut between of small volume. This was drawn two forceps and upon the left uterine pedicle was placed a gum elastic ligature. The membranous pedicles were ligated with silk, the pelvic cavity cleansed with sponges soaked in carbolic acid of 21–20–0. Finally an abdomino-vaginal drainage was established. A smaller tube of large caliber, twenty cm. long, furnished with holes in its lower half only, was introduced by the abdomen down to the vagina, the latter having been disinfected before the operation. Two hemostatic forceps seize the lower orifice of the tube in the vagina without obliterating it. The upper extremity of the tube is traversed close to the abdominal wall by a sterilized English pin, then protected by a dressing of iodoformized cotton. A little iodoform gauze is rolled around the forceps at the entrance of the vagina. Every six hours the abdominal dressing is removed and the tube irrigated with boiled water which escapes readily by the vagina. The tube is removed at the end of ten days and from this time a daily vaginal injection of bichloride is given. At the end of a month the elastic ligature comes away per vaginum, and the patient is completely cured.

By means of the abdomino-vaginal drainage, iodoform poisoning and stagnation are avoided. It may be mentioned here that the tube determines intestinal adhesions which constitute a sort of diaphragm which protects the peritoneal cavity. Chaput gives this operation the name of *Supra-vaginal amputation, with total median section and abdomino-vaginal drainage.*

Muscular Ruptures.†

Duplay (*La Méd. Mod.*, February 15) describes injuries of the muscles, the results of violent muscular effort, as of three kinds, viz.:—1, Luxation of the muscle; 2, Hernia through the aponeurosis; 3, Rupture of the muscle.

Luxation is a rather rare condition, and, in fact, is denied by some. Hernia consists in a tear of the aponeurosis with a protrusion of the fleshy substance of the muscle through the tear. This lesion is especially seen in the adduction of the thigh and gives rise to symptoms almost pathognomonic; there is a relaxation of the aponeurosis through which the muscle forms a hernial protrusion during contraction. There is also a change in the volume of the tumor according as to whether the muscle is in the state of contraction or relaxation.

Rupture of the muscle may be complete or partial. *Complete* rupture takes place most frequently at the union of the muscular and tendinous fibres, but, at times, it may occur in the middle of the muscle, especially in the biceps muscle. In *partial* rupture only certain bundles are involved; the separation between the two ends may be felt, especially at the upper end. If the muscle contracts the upper end protrudes considerably, while below there is a marked loss of substance

†Translated for The Medical and Surgical Reporter by W. A. N. Dorland, M. D.

noticed between the two divided extremities. These symptoms are difficult to observe when it is a deep muscle that is involved. On the other hand the diagnosis may be notably obscured by the production of an enormous blood effusion. Richardson has observed an effusion of at least a litre of blood. It might be conceived that the existence of an effusion of this kind might markedly hinder the correct diagnosis of rupture of a muscle. But in short this effusion itself, if it does not exceed certain limits forms part of the symptomatology. It always gives rise to an intra-muscular hematoma, which aids in the diagnosis. Finally there is a third variety. It is a rupture still more partial, we might say, a fibrillar rupture, in which the muscular rupture compared to the tear of the vessels, plays but a secondary role. The condition is nearly exclusively marked by the hematoma. There has indeed been a muscular tear, but this tear is fibrillar, but slightly extended, and the hematoma constitutes the essential element. If the hematoma is cured the muscular rupture will not give rise to any trouble.

In every case, in order to complete the diagnosis, it is necessary to ascertain whether, independently of traumatism, there exist other conditions that might favor the tear. At times there are found some very important predisposing causes, especially is this the case in individuals affected with grave infectious diseases. Then, under the influence of the muscular alterations noted by Hayem (granular and fatty degeneration), a very slight muscular contraction, such as is caused by the patient turning in bed, may give rise to a muscular tear. The great rectus of the abdomen on the right side is exposed particularly in this case; sometimes, as in typhoid patients, a tear of both recti may be observed. In these cases the hematoma nearly always ends in suppuration; whence a special variety of sub-aponeurotic abscess of the abdominal cavity may give rise to strange errors in diagnosis. In healthy individuals such is not the course, and suppuration is quite exceptional. Usually affairs rapidly change for the better. When the tear is not very extensive, so as to cause non-union, cure is usually very rapid. On the contrary, in infected individuals, suppuration frequently results.

There remains to be mentioned a last and very interesting termination; this is the persistence of the hematoma in the form of a tumor, generally small. It is a solid tumor; at times as hard as wood. If the initial traumatism is not known the most singular errors of diagnosis with every possible and imaginable tumor may be made. It is necessary, therefore, to think always of the possibility of these tumors. They may appear after a simple muscular contusion. It is necessary also to note especially in the lower limb a possible grave sequel. The muscular tear occurring in the lower limb is known, vulgarly, by the name of "*coup de fouet.*" If varices, even latent, exist there may be produced, under the influence of the tear of the vessels, a veinous thrombosis. If then a violent form of treatment be instituted, massage for example, embolism, even fatal, may be produced.

Treatment of incomplete or partial rupture with the formation of an hematoma. The first indication is absolute rest of the muscle. If possible it should be relaxed completely. Local applications: emollients at first (laudanum poultices, etc.) A little later, if the blood is slow in being absorbed, some revulsives may be given with a little compression. For the lower limb avoid massage for fear of embolism.

A Report of all the Laparotomies Performed in the Clinic of Prof. Billroth during the last Twenty-five Years.*

Hansy and Dr. E. Knauer report 969 operations, not including those operations for hernia, extirpation of tumors of the abdominal wall, opening of the peritoneum, extirpation of the uterus *per vagina*—or operations on the rectum or bladder.

Cases	Recov.	Deaths	Total
Ovariotomies	340	127	467
Myomotomies	83	65	148
Operations on the stomach	55	54	109
" " " Intestines	48	38	86
" " " liver spleen and pancreas	19	13	32
Operations on the kidneys and retro-peritoneal swellings	9	15	24
Incisions	63	32	95
Varia	2	6	8

*Translated for the MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

Further Contributions to the Studies of Operation for the Removal of Goitre.*

According to Dr. Ar. Eiselsberg, of Vienna, of the 52 operations for the *Total Extirpation of Goitre* at the Clinic of Billroth until July, 1892, 3 died suddenly (collapse, sepsis and entrance of air). The further results of the total extirpation were as follows: 12 suffered from tetanus, 11 from cachexia strumipriva, 10 made uninterrupted recovery (3 of these had no return; in 7 there was a return). The cachexia in one remained the same after as before the operation, and in 15 the results were either not known, or the time since the operation for reporting was too short. The author feels, therefore, that he can present the results, immediate and remote following this operation in 70 per cent. of the cases seen. Among the cases operated, there are 6 which do not correspond with our present views regarding the function of the thyroid gland. These are the 3 cases of cachexia with return of goitre, and 3 cases in which there is no return; all of whom remained well. He, especially, speaks of 12 cases done since July, 1885 to 1889, in which *more than four-fifths* of the *goitre was extirpated.* Of these, five died (1 from tetanus, 4 from collapse, sepsis and pneumonia); 4 patients subsequently suffered from tetanus but recovered later, much improved; 3 recovered entirely and remained so. *Partial extirpation in which at least one-fourth of the goitre was left,* was done 47 times with 42 recoveries. Mild symptoms of tetanus were noticed but in 1 case following the operation. *Enucleation of the goitrous nodule* was performed in 40 cases with 38 recoveries. *Ligation of the four arteries*, according to Wölfler, was performed 7 times for large diffuse struma, resulting in each case in contraction of the growth. In 3 cases the result was a very desirable one. Of particular interest is the report of one case in which acute suppuration of the thyroid gland was followed by tetanus, which had previously become colloid in nature and later took on sarcomatous degeneration. The author concludes from the results of these various operations that those cases in which a certain portion of the gland was allowed to remain—to continue to functional activity—it became the means of controlling the graver complications.

*Translated for The Medical and Surgical Reporter by Marie B. Werner, M. D.

Contributions to the Studies of Carcinoma of the Thyroid Gland.*

Dr. Hinterstoissen, the author, has based his studies upon fifty cases of carcinoma of the thyroid observed by him, during the past years in the Pathological Institute of Vienna. Twenty-eight occurred among men, and twenty-two among women. In the majority of cases the tumors presented a large circumference. In several cases the primary infection was almost unrecognized in contrast to the metastatic swellings in distant organs. The capsule of the thyroid was usually found, even in large tumors, to be intact. Particularly interesting was the relation which this tumor bore to the neighboring organs, such as the larynx, œsophagus, the large blood vessels and the nerves. The integument was rarely found to be adherent. In contradistinction to the carcinoma of the other organs, in which the infection follows the lymph channels, the thyroid variety extends preferably along the blood channels. The implication and induration of larger venous trunks near this tumor was found in eleven cases. In thirty-five cases secondary deposits were found in the lymph glands; in twenty-nine cases metastatic centers were found in the lungs. In isolated cases metastatics were found in the liver, heart, kidneys, and brain substances, and in ten cases metastatics were found in the bony system.

Histologically the author divides it into three classes; first, the *adeno-carcinoma*, which he subdivides into two, (*a*) adeno-carcinoma with partial or entire follicular construction and with colloid formation; (*b*) the cylindrical cell, adeno-carcinoma.

Second, the *medullary carcinoma* which is the most frequent.

Third, the *fibrous carcinoma.*

In his closing remarks he speaks of the diagnosis as being exceedingly difficult in the earlier stages. Since a benign growth frequently takes on malignant degeneration, and the exact time of this change is impossible for any physician to know. The operative results have up to the present time been very unfavorable.—(*Schmidt's Jahrbucher*, Band 237, No. 1.)

*Translated for The Medical and Surgical Reporter by Marie B. Werner, M. D.

ABSTRACTS.

THE SURGICAL THERAPY OF RECTAL CANCER.

Manley, of New York, gives (*Merk's Med. Bulletin*, Feb., 1893), the comparative values of the different operations for rectal cancer—tentative and radical—gathered from the published records of various surgeons.

In the London Hospital, from 1872 to 1880, thirteen colotomies for cancer were performed, with nine deaths. During the same time, says Cripps,* 26 such operations were performed at Guy's Hospital with 11 deaths—a mortality of about 42 per cent. It does not appear whether this was an operative mortality, or whether those were simply classified under "mortality," who died before leaving the hospital. Allingham gives 27 colotomies with a mortality of 11 per cent.

Cripp, says of colotomy that in some it affords relief from pain, while in others it has failed to do any good. Of course, in *complete* intestinal obstruction, a colotomy *must* be done.

Of later years, in France, Pinault, Velpeau, Récamier, Massé, Chassaignac, Maisonneuve, and in Germany, Freinonze, Nussbaum and Schuh, revived the operation of rectal resection for cancer, and in England, Paget, Jordan, Holt, Allingham, Gray and Holmes gave it their support.

In Cripps's Jacksonian essay on 36 recorded cases of extirpation *per-rectum*, defæcation became normal in 23; could not be retained when fluid in six and incontinence continued in only seven.

In all cases it appears that incontinence is the rule immediately after operation, but as the wound heals control is regained. Retention of the fæces, however, *is possible* in many instances even after the entire sphincter has been cut away.

In another table of Cripps', we find, of 66 recorded cases of extirpation: 44 recovered and 11 died—a mortality of 17 per cent.

Préchaud's tables,† made up from his own cases and the records of several other operators, give 149 observations on rectal cancer extirpations, of which there were 103 operative cures (69.13 per cent).

Immediate relapse in			3.
Doubtful results in			7.
Operative Deaths in			36.
69 relapsed	after		1 year.
15	"	"	2 years.
2	"	"	3 "
5	"	"	4 "
5	"	"	5 "

Hence, from the above, we must assume that, five years after operation, none but six could be accounted for,—or about 4 *per cent.* of all.

Charron gives us a table of results in 139 cases of colotomy(*). Of these,—

8 were missing and could not be accounted for.
54 died within 2 months.
65 lived from 2 months to one year.
5 lived from 12 months to 18 months.
3 lived from 1 year to 2 years.
6 lived 3 years or more.

It would appear from the above table that, in the results as far as prolongation of life is concerned, there is little difference ultimately.

It does not appear from these tables whether those who died, succumbed through a *local* recurrence of the malady, or as the result of a generalization or metastasis.

It is a matter of common observation that, when local, superficial epithelial growths are completely swept away by caustics or the knife, the disease most commonly recurs *rather in the internal viscera* than at its original site.

THE QUESTION, THEN, TO DETERMINE,

in a given case of cancer, is *not*—"what operation will eradicate the malady"; for *that* is clearly quite out of the question;—but rather,—"which will afford a temporary cure, and give the patient the greatest amount of *mental quiet* and bodily comfort; so that, when the end comes, it may be painless"; as we know is commonly the case when death is due to cancer of the internal organs.

On the main points which the question involves, modern surgery has made possible a quite general accord of opinion among operators.

*Cripps on Rectal Cancer; Ed. I., p. 212.
†Prechaud's "Cancer du Rectum," p. 126.

*Charron: "Maladies du Rectum," p. 112.

CURRENT LITERATURE REVIEWED.

THE AMERICAN JOURNAL OF OBSTETRICS FOR MARCH.

Dr. Jacob Rosenthal, of Dresden, contributes a paper on

An Operation for the Cure of Vesico-Cervical Fistula by the Sectio Alta.

The operation was devised by Trendelenberg for the relief of those cases of vesico-cervical, vesico-uterine and certain vesico-vaginal fistulæ in which, owing to the relations of the parts, the ordinary operation cannot be done; and is described as follows: "An extra-peritoneal suprapubic cystotomy is done, and after the bladder is opened the edges of the fistula are freshened and sewed; the bladder is then sewed up, leaving a small space for drainage; the abdominal incision is but partly closed, and the prevesical space tamponed with iodoform gauze and drained." In the case reported the patient, a primapara, complained after getting up that she was unable to hold her water. On examination the urine appeared to come from a slit-like opening between the bladder and the cervix high up in the vaginal wall on the right side. The anterior wall of the cervix had also disappeared and presented a funnel-shaped depression. It was impossible, owing to old and extensive adhesions, to operate *per vaginam*. The operation was performed by Prof. Leopold. The bladder was opened and found to contain a small soft stone which was removed. On further examination it was found that the fistula was high up on the right side of the bladder, opposite the descending ramus of the pubis, and that it communicated at this point not only with the uterus but also with the pubic joint by means of an irregular fistulous tract from which pus was oozing. An effort to freshen the edges of the fistula was found impracticable as the tissues had become too dense and adherent to the pelvis and there was little chance that the edges would unite. The urethra and ureters being beneath the fistula, a new bladder of reduced size was constructed by making a flap from the anterior wall of the bladder and another from the posterior wall, beginning beneath the fistula and approximating the two. The fistula was thus left outside the new bladder and was closed with catgut, an iodoform drain being introduced into the uterus. On exploring the fistulous tract leading to the pubic joint, the cartilage was found destroyed and the bones carious. The joint and fistulous tract were curetted. The patient made a good recovery. The literature of the subject is reviewed by the reporter and the paper is illustrated with cuts showing the condition of the bladder and the steps of the operation.

Dr. Paul F. Munde reports

Seven Unusual Cases of Congenital Malformation of the Female Genital Organs.

After discussing the subject of malformation of the female genital organs the author reports the following cases:

I. Imperforate vagina; rudimentary uterus; absence of ovaries. An artificial vagina was made in the hope that the uterus and ovaries might be stimulated to a more natural growth. On reaching the rudimentary uterus in the dissection a discharge of thick mucous took place. The small uterus was about one inch long. The edges of the external os were stitched to the margin of the newly formed vagina and the whole cavity packed with iodoform gauze. No ovaries could be detected.

II. Perfect female habitus; normal genitals and vagina; rudimentary uterus; absence of ovaries.

III. Perfect vagina; absence of uterus and ovaries; normal female habitus. In these last two cases there was no relief to be offered.

IV. Double uterus and vagina; congenital closure of the right half; hematometra and hematocolpos dextra lateralis. The septum between the two halves of the uterus and vagina was excised from vulva to fundus. It proved very thick and vascular, and numerous catgut ligatures were required to stop the bleeding. The patient recovered fully.

V. Double uterus and vagina; normal ovaries; dysmenorrhœa. This patient had been advised to have the ovaries removed on account of the severe dysmenorrhœa. The whole septum was excised from vulva to fundus resulting in the cure of the dysmenorrhœa. Dr. Munde does not explain the relief from pain in this case.

VI. Double uterus; pregnancy in the left half mistaken for extra-uterine. Laparotomy was performed under the impression that an extra-uterine pregnancy existed, or an interstitial pregnancy in the right horn. In order to reduce the size of the tumor as much as possible, so as to bring it out of the small incision, the amnionic fluid was aspirated. The sound had previously been passed to a depth of three inches; but on requesting the assistant to again pass it, to the operator's surprise it entered to a depth of five and one half inches and was plainly visible through the uterine wall. On withdrawing the sound and on entering it on the left it only passed to the depth of three inches, proving the case one of double uterus. The patient aborted twelve hours later and made an uneventful recovery. "It would be well to consider the possibility of making this mistake in cases of doubtful pregnancy, particularly in those where the fetus is claimed to have been expelled through a dilated uterotubal opening into the uterine cavity and delivered as in ordinary abortion."

VII. Double uterus and double vagina; right half parous and containing fibroid, left half rudimentary. The patient had had two children. A fleshy fold divided the upper half of the vagina and had probably originally extended down to the vulva but had been torn away in one of the labors.

The paper is illustrated with cuts showing the conditions existing in each of the cases reported.

Dr. L. S. McMurtry, in an able paper on

The Essential Question of Drainage in Pelvic Surgery

represents fully the views of those surgeons who are accustomed to use the drainage tube in their pelvic work. The objections to its use are also discussed and answered. After reviewing the principles underlying the use of the drainage tube and showing that incision, evacuation and drainage of an abscess are but imitations of nature's own processes, he gives the indications for its employment. "In operations where there is existing peritonitis or ascites, drainage" he says "is indicated. This is especially true of cases of tubercular peritonitis." He regards its use as essential in pus cases and in extra-uterine pregnancy where we have septic matter on the one hand, and an effusion of blood into the peritoneum on the other. In his experience he has saved patients by the drainage tube in cases where the coats of the bowel or the bladder had been injured and the resulting fistula developed through the drainage tract instead of discharging into the peritoneal cavity as it would otherwise have done. "Where separation of adhesions leaves extensive denuded surfaces oozing serum and blood, or bleeding is reasonably to be expected, the tube is indicated." If the tube be frequently emptied it has power to stop the hemorrhage by the frequent drying and cleansing of the peritoneum, and also will give notice to doctor and nurse of any serious bleeding. In regard to the method of draining he says "No method of drainage in pelvic surgery is comparable to the glass suprapubic tube aided by suction." It should be frequently cleansed by means of a long-nozzled syringe. When effusion is profuse the tube should be emptied at first every fifteen minutes, gradually increasing the interval as the quantity discharged diminishes. When peritoneal drainage is conducted in the proper manner it is thoroughly efficient, and he has never known septic infection to occur thereby. He does not include pelvic drainage *per vaginam* in the paper because he considers it both inefficient and dangerous—"inefficient because rubber and gauze will be obstructed, and glass is impracticable; dangerous for the reason that the tube and the opening cannot be kept clean."

Dr. Charles Dixon Jones contributes a paper on the

Development of the Placenta in Tubal Gestation

in which he comes to the following conclusions:

"1. In the earliest stages of the formation of the decidua, the folds of the tubal mucosa become enlarged, their connective tissue returns to protoplasm, their blood vessels become considerably dilated and engorged with blood.

2. Upon the approach of the decidua the columnar ciliated epithelia of the tubal mucosa enter upon a process of proliferation resulting in the production of medullary or embryonal corpuscles.

3. The medullary corpuscles are developed from previously existing columnar epithelia and in turn are transformed into decidual tissue.

4. The delicate fibrous connective tissue of the tubal mucosa is reduced to protoplasm, the stage of indifference from which decidual tissue originates.

5. The smooth muscle fibres of the tubal mucosa proliferate, produce medullary corpuscles much the same as the columnar epithelia and ultimately disappear by being transformed into decidual tissue.

6. In the third month of tubal pregnancy a lively new formation of placental villi takes place, first by a thickening, afterward by a budding-out of the older villi.

7. These buds are protoplasmic in nature and are identical in their structure with that of the epithelial layer which gave origin to them. At first the buds are non-nucleated; later on they become supplied with nuclei.

8. The originally solid buds become differentiated into a peripheral epithelial layer and a central connective tissue layer. The latter is at first made up of medullary or embryonal tissue, and afterward becomes transformed into myxomatous tissue.

9. The capillary blood-vessels grow into the central tissue by a sprouting of the older capillary loops. The sprouts are originally solid, and in turn become hollowed out by vacuolation, thus connecting with the older blood-vessels."

The paper is illustrated by cuts showing the conditions spoken of in the above resume.

Dr. James F. W. Ross reports a case of

Complete Hysterectomy,

being the second case of pregnancy complicated by fibroid tumor that has occurred in his practice within ten months. The patient was forty years old, had been married eleven months but had never been pregnant. Menstruation had been suppressed three months. She had noticed a lump in the side one month before the menstruation ceased, but it had never caused her any pain although it had increased to the size of a fetal head when the reporter saw her. The diagnosis made at that time was pregnancy complicated with either a multi-locular ovarian cyst or a fibroid tumor. At the operation it was found to be a fibroid springing from the left side of a four months pregnant uterus. Complete extirpation of the uterus was performed after the method advocated by Dr. Eastman. The tumor was drawn out; the broad ligaments tied on each side; a temporary clamp applied and the tumor cut away. An Eastman staff was then passed into the vagina and cut down upon from above through the cul-de-sac of Douglas. One finger was then passed into the vagina and the inter-abdomino-vaginal tissue sutured and cut; in this way removing the entire uterus. The ligatures were then caught together by a pair of forceps, passed up from the vagina, and drawn down together with a twisted rope of iodoform gauze. "The iodoform gauze and sutures were thus lying in the vagina, and the serous surfaces of the peritoneum surrounding the opening were approximated by this funnel-

ling of the hole where the cervix had been." The patient recovered from the operation but died on the thirty-ninth day of intestinal obstruction, during Dr. Ross's absence from home. The report is illustrated with a photograph of the tumor and fetus removed.

Dr. J. Wesley Bovee reports a case of "Complete Rupture of the Uterus during Labor." The patient had had seven children at term, and one miscarriage at three months, which occurred subsequent to an amputation of the cervix for cancer. On examination the child was found to be presenting by the vertex in L. O. A. position; the cervix uteri surrounded by undilatable, cicatricial tissue. It was decided to let labor go on and assist in whatever way seemed best. The pains continued feeble and the patient was kept in bed. Later profound and sudden collapse occurred and on examination the uterus was found to have ruptured. The post mortem showed the tear to be in the left side of the cervix posteriorly and extending from about an inch from the cervical opening upward four or five inches. "Connected with this opening was a tear through the roof of the vagina behind the uterus extending backward and to the right about two inches. The uterine wall was very soft and flabby, and its inner surface covered with a greyish, grumous material having no particularly offensive odor. No evidence of hemorrhage was found. The os uteri was very little dilated and was surrounded by a thin, circular band of cicatricial tissue." The reporter thinks the cicatrix, following the amputation of the cervix and the application of cautery, was the exciting cause of the rupture. He advises hysterectomy, either vaginal or abdominal, for cases of malignant disease of the uterus wherever it is possible.

Dr. Alfred Bland Tucker reports a "Case of Lumbar and Inguinal Hernia of the Right Side." The mass, weighing about forty pounds, extended from the umbilicus outward, corresponding with a line drawn from the axilla to the middle of the crest of the ilium, and reached to within three inches of the knee. The patient made a complete recovery from the operation. The points of interest in the case are: "1st, that there was a double hernia, the inguinal and the rarer lumbar; 2d, the contents of the sac—all of the small intestine, caput coli, part of ascending colon, and the stomach; 3d, the great displacement of the stomach from the epigastrium to a point below the crest of th eilium, and out of the abdominal cavity; 4th, the great elongation of the œsophagus necessary to reach that point; 5th, that there should not have been more disturbance of the digestive organs by the displacement." So far as the reporter is aware there is not on record a case of escape of the stomach in lumbar herniæ. The engraving accompanying the report shows the patient's condition very clearly.

Dr. Sigmar Stark discusses the

Role of the Pessary in the Cure of Retrodisplacement of the Uterus.

The cause of the displacement he holds to be a relaxation of the sacro-uterine ligaments, due to subinvolution of these folds, and being part of the uterine subinvolution. He believes that it requires more skill to properly adjust a pessary than to perform the many operations devised for the relief of the trouble. "To apply a pessary for retroflexion or version with coexisting peri-uterine inflammation of whatever character, is positive malpractice. The disease of the appendages must first be reduced, the organs rendered painless to the touch and the uterus become freely movable before recourse to the pessary may be taken." He believes the action of the pessary to be due to a pressure on, and consequent reduplication of, the sacro-uterine ligaments and gives the reasons for this belief. The aim should be not to apply a pessary till the patient is in a condition to wear one, to select a suitable instrument, and not to allow her to wear it too long. Some cases cannot be cured by the use of a pessary. In those in which the fundus is constantly tipping over the posterior bow of the pessary, we have an unstable condition of the fundus—a true joint at the junction of the cervix and the body due to atrophy. The second class of incurable cases are those in which there has been such atrophy of the folds of Douglass that restitution is out of the question and we have to be satisfied with the simple mechanical effects.

Dr. Hiram N. Vineberg concludes his paper on

Pelvic Massage in Gynecological Cases,

begun in the February number. He reports an additional number of cases treated by this method, illustrating the paper with drawings of the conditions existing in each case at the time of treatment. He comes to the following conclusions: "1. Pelvic massage is a most valuable therapeutic measure in a large percentage of cases of gynecological affections. 2. If properly applied in the cases where it is indicated, it is a thoroughly safe measure. 3. Cœliotomy and ventro-fixation for displacements of the uterus and for residua of inflammatory processes, are unjustifiable until the case has first been subjected to a thorough trial with pelvic massage. 4. It must entirely replace Schultze's method, which is a dangerous proceeding, limited in its application and not nearly as efficient in breaking up adhesions of long standing. 5. Of all methods and surgical procedures for the treatment of adherent and displaced pelvic organs, it must rank as the ideal one, calling for no mutilation and for no fixation of organs. The latter is in itself pathological, as Nature has given these organs, especially the uterus, a wide range of mobility."

Dr. E. W. Mitchell contributes a paper on

Rigidity of the Os Uteri.

The various causes of this condition are discussed and the following treatment advocated. Any malposition of the presenting part should be corrected. Dilatation by the finger may be useful at times, but care must be taken that the manipulation does not produce or intensify spasm of the circular fibres. The colpeurynter he considers much more

safe and efficient than the fingers, but must be used with the strictest antiseptic precautions. If the dilatation is prevented by adhesions between the membranes and the cervix, they can be released by gently sweeping the finger around the inner surface of the os. The use of ergot is condemned. Electricity, quinine in doses of ten to twenty grains, the hot douche, have all done good service in this condition. Opium is useful when the pains are weak and "teasing," by giving the woman rest and recuperating her powers. When it is not desired to stop the pains he has found of use chloral, administered after Playfair's rule of fifteen grains every twenty minutes for three doses, and not more than sixty grains during the labor. When chloral has failed to secure relaxation, chloroform inhaled during the pains may succeed. When a reasonable trial of other measures has failed, incisions of the rigid os may be made at several points, one-sixth to one-fourth of an inch deep, under antiseptic precautions.

Dr. Mary Almira Smith reports a case of "Malignant Neoplasm of a Lumbar Lymphatic Gland simulating an Ovarian Cystoma."

Dr. T. Ridgeway Barker discusses "The Mechanism of Labor," illustrating his paper with diagrams showing the positions of the head and shoulders in their passage through the pelvis.

THE ANNALS OF GYNECOLOGY AND PÆDIATRY

for March contains a paper by Dr. Joseph Price on "Dermoids." The author reviews the recent literature of the subject and pleads for clean, rapid, thorough surgical work in their removal. Irrigation he considers essential. For tying the pedicle pure Chinese twist silk, as fine as possible, should be used. The sutures should be of silkworm gut, placed three or four to the inch and passed with care, including more aponeurotic and muscular tissue than skin or peritoneum. The best work is done with the fewest instruments.

Dr. B. F. Baer reports a "Large Solid Tumor of the Ovary, complicated with Malignant Disease of the Uterus." The diagnosis at first was fibroid tumor, though Dr. Baer suspected malignancy. At the operation it was found to be a solid tumor of the ovary with accompanying malignancy of the uterus. A supra-vaginal amputation of the uterus was done, and twenty days later the stump of the cervix removed by a vaginal operation. The patient recovered.

Dr. T. Ridgway Barker discusses "The Coagulability of the Blood in Parturition as a Factor in the occurrence of Post-partum Hemorrhage." Post-partum hemorrhage is due to the non-contraction of the uterus and the failure of the blood to coagulate in the uterine sinuses. The author points out that should the blood escaping from the vulva during labor fail to coagulate on exposure to the air, we may take it as a warning that the patient is exposed to the danger of hemorrhage. Fresh air and sunshine and judicious exercise during pregnancy, combined with good food are, in the author's opinion, important in the prevention of the accident.

Dr. Andrew F. Currier contributes a paper on "Certain Forms of Septicæmia Resulting from Abortion," which was published in the MEDICAL AND SURGICAL REPORTER Feb. 11, 1893, page 214.

Dr. A. T. Cabot presents

A Report of Cases of Tubal Pregnancy, with Remarks on the Choice of Operation.

He confines his remarks to cases of ruptured tubal gestation, as they have been the only form he has met with. He is of the opinion that laparotomy done at once, even in cases where no rupture has taken place, is a much safer method than any of the so-called conservative measures. When rupture has taken place there is manifestly one course only—laparotomy. No time is to be lost; a knife and ligatures are practically the only instruments required, so that the operation can be performed with simply a pocket case if necessary. "If the clots cannot be satisfactorily washed out of the abdomen with hot water, it is well to introduce drainage into the pelvis for a day or two." He then reports four cases with typical histories, three of which had had a miscarriage some time previous to the tubal gestation, and one who had a long period of sterility (six years) before the occurrence of the accident.

Very interesting in this connection is the report of a

Case of Extra-Uterine Fœtus Successfully Extracted by the Operation of Lithotomy,

reported by Dr. Joseph Bossuet, and contributed by Prof. T. Gaillard Thomas from the author's original manuscript. The case, which occurred in 1807, presented all the symptoms of missed labor which were controlled by large doses of opium. At the roll of three years she experienced acute pain in the abdomen, attended with profuse evacuations from the urethra of very fetid yellow matter and some very small bones. A communication between the bladder and rectum also developed. In 1816, lithotomy was performed and 146 bones of a fœtus, about seven months old, were extracted together with "a stone about the bigness of an olive." The author states that she then regained her health although the communication between the bladder and the rectum did not entirely close.

Dr. J. J. Mulheron makes a plea for "Early Trachelorrhaphy," stating that the operation at the end of two weeks is exceedingly easy of performance, and that he has not found it necessary to etherize the patient as no cutting is required but simply the freshening of the surfaces with a curette. The stitches are easily passed with a round needle through the soft tissues, and a peculiarity of the early operation is that it leaves no traces of the sutures. He uses carbolized catgut and has not yet met with a failure. The procedure hastens involution and is preferable in his opinion, to the immediate operation which he has found very difficult of performance.

Other papers are: "Variations of Gestation" by Dr. T. C. Hays; and "Pelvic Inflammations following Parturition" by Dr. J. G. Biller.

In the Department of Pædiatry, Dr. J. Madison Taylor reports a "Case of Hypospadia; Enormous Dilatation of Bladder; Absence of Left Kidney; Death" illustrating the paper with the photograph of the patient.

Dr. W. Henry Price reports a case of "Sarcoma in an Infant," and "Two Unusual Cases of Torticolis" of rheumatic origin which are exceptions to the rule that the head is drawn to the affected side.

PRACTICE FOR FEBRUARY.

Drs. Hugh M. Taylor and Hunter McGuire report an interesting case of

Ectopic Gestation.

Dr. Taylor diagnosed the case and urged the importance of operation. During the conversation the patient complained of sudden agonizing pain and went into a collapse. One hour and a half later Dr. McGuire opened the abdomen, found the ruptured tube, ligated and removed it, but the patient had lost so much blood that she did not rally. Dr. McGuire believes that she bled to death in about thirty minutes. He urges the importance of operation as soon as the diagnosis is made. Mr. Taylor in his remarks on the case agrees with Dr. Tait that all ectopic gestations are primarily tubal, and that the so-called ovarian, abdominal, etc., are secondary results. But let the ectopic gestation occur where it may, the indications for treatment are the same. He thinks "that temporizing with electricity savors of shirking one's duty. To shoot a few flashes of electricity through an unknown mass claiming to have electrocuted a tubal fœtus, implies a very elastic imagination or conscience."

Dr. John Blake White contributes a paper on

Pneumotomy for Relief of Tubercular Abscess and Gangrene of the Lungs,

reporting a case where the operation was performed twice on one patient, with recovery. He condemns too diligent washing out of pus cavities, pulmonary or pleural, though he believes that irrigation is safer in gangrenous cavities, as in the case reported, than in those emiting more laudable pus. In all operations on the lungs the strictest antisepsis should be carried out. Cases of gangrene of the lung are never too far advanced for surgical interence, in his opinion. He does not consider it necessary to excite pleural adhesion before operating, as the delay required may increase the danger to the patient. Resection of the rib is seldom required in the very young, except to faciliate the discovery of abscess in doubtful cases. Corrugated white rubber tubing was used for drainage, as this has proved more useful than the ordinary soft rubber generally employed.

Dr. Thomas H. Manley, in an article on

Urethrectomy, Partial or Complete, as a Method for Radical Treatment of Rupture of the Urethra, Fistula, or Organic Stricture,

comes to the following conclusions: In all cases of traumatic rupture of the perineal urethra, the tissues should be laid open at as early a date as possible, and the continuity of the lumen of the urethra should then be entirely restored by a urethrorrhaphy. Those urethral perineal fistulæ which resist dilatation or other tentative measures, should be resected and continuity restored in the passage by homologous approximation of the separated edges, the hiatus remaining being obliterated through linear elongation of the fibres of the muscular coat. With those strictures rebellious to tentative methods, not appropriate for internal urethrotomy or divulsion, when they are divided by an external incision, the occasion should be utilized to hew a gutter through the cicatrical tissues, and to reconstruct the floor of the canal with the adjacent connective tissues. In all cases the most rigorous asepsis should be employed, and the aim, in every case, should be to secure non-supurative, primary union.

The remaining article is a clinical lecture by Dr. Robert T. Morris on "The Middle Scar Hair-lip operation, and Dupuytren's Contraction."

SELECTED FORMULÆ.

Laundry Starch Polish.

In answer to a correspondent the *National Druggist* gives the following information about laundry starch polish:

℞

Stearin	25 parts
Spermaceti	200 parts
White wax	100 parts

Melt together, and while melted stir in ½ grain of ultramarine to each ounce of the mixture. (As liquid blue is u ed with most starches the latter may be omitted.) Let cool and cut into little blocks weighing about 2 drams each. One of these bits may be added to each ¼ pound of starch used. The starch may be allowed to soil for fifteen minutes before adding the gloss, and the boiling should be continued for at least five minutes longer.

Gonorrhœa in Females.

Dr. Horwitz recommends the following treatment:

℞

Ung. cucumis	ʒj
Alum	ʒj
Acid, tannic	ʒij
Ft unguentum	M.

Smear a quantity on a pledget of cotton, pass it into the vagina at night; remove it in the morning, and use the following injection:

℞

Decoct. quercus alb	Oj
Sodii boratis	ʒss M.

—*Ex.*

Vomiting in Pregnancy.

Dr. Frank R. Fry recommends the following :

℞
Cocain. muriat..... grs. vj.
Cerii oxalat..... grs. xxiv.
Glycerinæ, } aa..... ʒiij,
Aquæ laurocer, }
Aquæ destil. q. s. ad..... ʒiij,

M. Fiat mist. Sig.—One tablespoonful (taken cold) every two hours once or twice a day, pro re nata.

—*Coll. and Clin. Record.*

Sore Throat.

The following is recommended in the tre atment of sore throat :

℞
Cocainae hydrochlorat..... grs. viij.
Acid. carbolici..... ʒi.
Glycerinae..... fʒiv.
Aquae rosae q. s., ad..... fʒxii.

M. Sig.—To be d luted with an equal quantity of water, and used alternately as a spray and gargle.

—*Medical Progress.*

Local Psoriasis.

Pyrogallic acid, salicylic acid, chrysophanic acid, ichthyol, aristol. each ℈j ; axonge, ʒiss. To be applied once a day.

—*Med. Press and Circut.*

Barber's Itch.

℞
Tannic acid..... 45 grains.
Lac sulphur..... 1½ drachms.
Zinc oxide } of... ....
Starch .... } each..... 4 drachms.
Vaseline..... 1 ounce.

Make into an ointment and use twice daily.

—*Phar. Era.*

Antiseptic Dental Cream.

H. L. Hurxthal has been awarded a prize by the *Pharm. Record* for the following formula :

℞
Precipitated chalk..... 5 drams.
Powdered white castile soap. 1 dram.
Salicylate of soda..... 30 grs.
Oil of rose geranium..... 4 drops.
Oil of wintergreen..... 4 "
Solution of carmine..... 2 "
Glycerine, 4 }
Water, 1 } .... q. s.

Taenifuge for Children.

—ELECTUARY.—

℞
Male fern extract..... 4 gms [1 dram]
Calomel..... 0.3-0. 4 gm [6grs.
Powdered gelatin } sufficient quantity of each]
Powdered sugar }

For one electuary. To be taken before breakfast.

(The day preceding the administration of the medicament, the child should take nothing but milk ; in the evening of the same day an enema of Senna Infusion is given, followed a few hours later by an injection of plain water. The next day, the child takes the confection. If the expulsion of the worm is tardy, a salt-water clyster is given (Salt 40 grammes [10 drs.], Water 200 grammes [6¾ fl. oz.]) two or three hours after the ingestion of tænifuge.

—*Ex.*

Treatment of Gonorrhœa.

The following will be found useful :

Salol, ʒiv. Divide into twelve powders ; three daily. Ichthyol, 1 ; water, 100. Three injections daily. Ichthyol is found to be superior to sublimate or permanganate of potass.

Treatment of Impetigo Contagiosa.

Besnier's application in impetigo contagiosa and pustulous exzema is as follows :

℞
Salol..... 3 gm.
Sulphuric ether..... 3 gm.
Cocaine hydrochlorate..... 20 cg.
Collodion ..... 20 gm.

Mix and make a collodion. Apply to the diseased parts after carefully drying same

Pomade for Psoriasis of Scalp.

Besnier gives the following :

℞
Potash soap..... 20 gm.
Vaselin ..... 20 gm.
Ichthyol..... 2 gm.
Salicylic acid..... 1 gm.
Pyrogallic acid..... 1 gm.

Mix and make a pomade, which is to be applied every day to the plaques of psoriasis. If much irritation is created, suspend the application temporarily.

—*Nat. Druggist.*

Soothing Syrup without Opium.

℞
Oil anise..... mxxv.
Alcohol..... ʒij.
Fl. ext. valerian..... ʒi.
Oil peppermint..... mxv.
Tinc. camphor..... ʒij.
Fl. ext liquorice..... ʒi.

M. Sig.—Shake the bottle. Dose, one-fourth or one-half teaspoonful in water ; repeat as needed.

—*Med. Age.*

Prof. Hare recommends the following prescription in cases of *Gastralgia:*

℞
Tinct. capsici.....fʒij.
Tinct. cannabis indicæ.....fʒss.
Tinct. opii deodorat.....fʒj.
Spirit. chloroform.....fʒj.
Spirit. lavend., q. s. ad.....fʒiv.

M. Sig. Teaspoonful every thirty minutes until relief is obtained.

Vesical Injections of Emulsions of Iodoform in Purulent Cystitis.

Dr. Philippoff (*Deut. Med.-Zeit*, No. 93, 1892) has used vesical irrigations of an emulsion of iodoform in the treatment of purulent cystitis, and is gratified with the results obtained in three severe cases. He first washes out the bladder with a solution of lactic acid (1:400), and then injects twenty grammes (5 drachms) of the following :

℞
Finely powdered iodoform....gms. 5 (¼ʒj)
Mucilage of gum arabic.....gms. 2 (gtts. xxx.)
Pure Glycerine.....gms. 8 (ʒij.)
Distilled water, ad.....50 gms. (ʒjss.)

The injection is retained for fifteen minutes. They are repeated at intervals of several days, and continued for a number of weeks. Internally salol and Vichy water are given. With this treatment Phillippoff had observed no symptoms of poisoning, due, he says, to the vesical mucous membrane being changed by the pathological process.

PERISCOPE.

MEDICINE

Heat in Local Skin Diseases.

Stepanaw (*St. Petersburger Medicinische Wochenschrift*), writes the following as the outcome of his investigations:

1. In the treatment of local skin diseases and ulcers, heat is an important factor.
2. Ulcers heal more rapidly in consequence of the application of heat than under any other treatment.
3. Heat acts as well upon syphilitic as upon non-syphilitic ulcers.
4. The beneficial effects of heat on the healing of ulcers depends principally upon regulating the circulation and improvement of the nutrition of the diseased parts.
5. Under the influence of heat, local congestion rapidly disappears.
6. Heat acts as a sedative.
7. Heat acts the better the longer it is applied (6 to 8 hours daily).
8. The application of heat by means of the rubber bag with hot water, is preferable to other methods. Even prolonged use of the bag does not produce blistering.—*Medical Era.*

Varicose Ulcers.

EUROPHEN.—Gilbert (Reprint from *Balneologisches Centralblatt*, Vol. II, No 13,) reports two cases of varicose ulcers treated with europhen.

I. Woman aged sixty-nine. Hard infiltration and eczematous inflammation of entire left foot and leg; ulcer the size of a human palm, covered with flaccid, torpid granulations. All previous treatment proved ineffectual.

II. Woman aged fifty-five. Ulcer 4 cm. ($1\frac{5}{8}$ inch) long by 3 cm. ($1\frac{3}{8}$ inch) broad, entirely surrounded by inflammatory indurations; varicose veins near the ulcer.

Treatment.—Local bath of chamomile flowers in the evening, sprinkling the entire surface with europhen, light covering with gauze and cotton-wool, and enveloping with muslin bandage. In the morning application of europhen ointment.

℞ Europhen.....2.0 (ʒ ss)
Vaselin.....
Lanolin..... aa 50.0 (ʒ xii ss)
M. f. ung.

This application was again covered and the leg bandaged. Soon healthy granular tissue appeared in both cases, and in three weeks the ulcers were covered with skin. There was no recurrence of the ulcer in either case. —*Cinn. Med. Jour.*

SURGERY.

How to Administer Chloroform Properly.

Mr. W. J. Cleaver gives the following valuable advice in regard to the administration of chloroform: Take your folded towel or cap of flannel stretched over a wire frame, and your chloroform bottle, graduated if you like, but this is of no consequence: let the temperature of the operating room be at least sixty-five degrees F.; if your patient be one of the very nervous kind, give from half an ounce to an ounce of brandy an hour beforehand; put your catch forceps or your tongue forceps on the pillow beside you; pour a dose of chloroform, a drachm or two, on to the towel or cap and hold it, to commence with, two or three inches away from the mouth and nose of your patient, gradually bring it nearer, but never so near as to exclude air from mixing with the chloroform vapor; at the same time keeping your mind and eye on the respiration movements alone. If the patient shows any symptoms of struggling, let assistants take hold of his wrists and allow him to move his arms about as long as he does not interfere with the administration. If he endeavors to get up he must, of course, be restained, but on no account let half-a-dozen dressers throw themselves upon him, their united weight probably coming near upon half a ton. What chance has free respiration in such a case? A little pressure on the shoulders will in ninety-nine cases out of a hundred be found to be quite sufficient; when a patient is forcibly held down with half a dozen big men on top of him, his struggle ends in a kind of night-mare, with perhaps a fatal shock at the close of it. Continue the administration quietly and gradually, without being put out of countenance by the repeated demands of the operator—to know whether he is not yet under; and such remarks as, I never knew a man take such a lot, put it closer to his nose, what a time he is getting under, etc., etc. You are giving the chloroform, not the operator, therefore take no heed of him. When there is no conjunctival reflex, and a pinch on the skin of the abdomen bears no result, the pupil of the eye fairly contracted, and the breathing regular but perhaps stertorous, you can allow the operating surgeon to proceed.

Pay no attention to the operation, however interesting it may be; watch your patient's breathing only, and continue the chloroform when you see any signs of returning consciousness. If you do this, and this only, you will never have cause to regret it.—*Sheffield Med. Jour.*

Carbolic Acid in Surgery.

There is considerable excitement in surgical circles just now owing to the recantation of Sir Joseph Lister in regard to the use of carbolic acid and mercuric salts in surgery. He has now abandoned the latter entirely, and has gone back to the former. The fact was mentioned in *The Chemist and Druggist* a few months ago (November 5, 1892, page 681), but the medical papers have just got hold of it through an address delivered by Sir Joseph at King's College the other week. It seems that the reason why corrosive sublimate began to displace carbolic acid was be-

cause Koch made some observations which showed that the former was more powerful than the latter; but it turns out that Koch exaggerated the power of the sublimate, and in such solutions as can be used in surgery it is much inferior to the acid in bactericidal power. Professor Crookshank has made experiments with the two antiseptics upon the tubercle bacillus, which further demonstrate the superiority of carbolic acid. So much for what may be called the theory. In practice Sir Joseph Lister uses a 1-in-20 solution of carbolic acid, and he states that while "it is more trustworthy as a germicide for surgical purposes than corrosive sublimate, it is in other respects also greatly to be preferred. Carbolic acid has a powerful affinity for the epidermis, penetrating deeply into its substances, and it mingles with fatty materials in any proportion. Corrosive sublimate solution, on the other hand, cannot penetrate in the slightest degree into anything that is greasy; and therefore, as the skin is greasy, those who use corrosive sublimate require elaborate precautions in the way of cleansing the skin—treating it with oil of turpentine or ether, not to mention soap and water, to remove the grease which they feel it essential to get rid of for the efficient action of the corrosive sublimate. All this is unnecessary care if you use carbolic lotion." It is satisfactory to note that the founder of Listerism has gone back to his old faith. It deserves to be mentioned that for several years the quantity of corrosive sublimate used in the principal hospitals of London has been on the decrease, and carbolic acid has been taking its place. The reason for this has not been exactly that put forward by Sir Joseph Lister, but the fact that mercurial poisoning was becoming very frequent amongst surgical patients. This was due, of course, to the corrosive sublimate being pushed too far, as, indeed, antisepism is apt to be. There is a growing belief that asepism rather than antisepism will hold the surgical field in the future.—*The Chem. and Druggist.*

Suture Applied to Wounds of Veins.

Dr. Max Schede (*Einige Bermerkungen ueber die naht von Venenwunden Arch. fur. Klin. Chirurgie* No. 3-4, 1892,) favors the application of a fine continuous catgut suture to wounds of the larger veins. He presents the case of a man who was operated upon for a malignant tumor of the kidney. During the operation the inferior cava was accidentally incised. The opening was closed by a suture that extended along the vessel for a distance of two inches. During the vein suture the hemorrhage was controlled by applying catch forceps above and below the opening and extending the vein.

The patient died several days after the operation, permitting an examination of the vein to be made. The intima had united firmly and the neighboring part of the vessel wall was perfectly normal. No evidence of thrombosis was present throughout the vessel. The author thinks suture much superior to ligature or leaving forceps upon the vein.

Two New Local Anæsthetics.

The muriate of tropa-cocaine, or tropsin, is a substance obtained from the Java coca, and said by Professor Schweiger to have a local anæsthetic action resembling that of cocaine. It is weaker in action, but it causes anæsthesia more rapidly.

Eugenol-acetamide is recommended as a new anæsthetic. As crystallized from water it occurs in lustrous scales; from alcohol it occurs in fine needles, melting at 110° F.

This compound, when applied in the form of a fine powder, produces local anæsthesia without any caustic action, similar to cocaine. This anæsthetic effect, in connection with the strong antiseptic properties of eugenol-acetic acid, secures a place for this new amide in the treatment of wounds.—*N. Y. Med. Rec.*

OBSTETRICS.

A Bacillus of Eclampsia.

The time-honored relation of albuminuria to purperal eclampsia—as cause and effect—has been questioned at various times, but as there had never been any facts presented which furnished a more plausible solution of the etiology of this serious disease, it has remained practically as before—the result of the nephritis of pregnancy.

Kaltenbach and Gerdes (*Wien. Med. Blaett., and Med. Deutsche Med. Wochen.*), and abstracted by The Review of Insanity and Nervous Diseases, have discovered a short, thick bacillus in the organs and blood of patients dead of puerperal eclampsia, and Gerdes sums up as follows:

1. The eclampsia bacillus is the sole cause of puerperal eclampsia and is found in no other disease, and there can be no eclampsia without its presence. The infection proceeds from the uterus, probably from an endometritis existing prior to conception.
2. The convulsions due to other causes occurring during labor, are to be strictly separated on the basis of the post-mortem appearances, from true puerperal eclampsia.
3. Eclampsia is a well-characterized disease, strictly limited anatomically.
4. The profound changes found in the organs of eclamptic patients *post mortem* are not adequately explained by the domonstration of the presence of the specific germ in the body, but are probably due, directly or indirectly, to its toxines.—*Chicago Clin Review.*

Excursions to Washington.

Personally conducted tours to Washington have been arranged via Royal Blue Line, to be run at frequent intervals from New York and Philadelphia to Washington. The next excursion will be on April 6th. For programme, describing these tours, write to Thos. Cook & Son, Agents B. & O. R. R., 261 and 1225 Broadway, New York, or 332 Washington Street, Boston, Mass.

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ORIGINAL ARTICLES.

I. C. BARNES, M. D., Topeka, Kan.
Eclampsia of Pregnancy. 517

CLINICAL LECTURES.

EDWARD JACKSON, A. M., M. D.
Senile and Secondary Cataracts and their Treatment 521

COMMUNICATIONS.

L. WOLFF, M. D., Philadelphia.
Hypodermatic Medication in Syphilis. . . . 525

A. W. WILMARTH, M. D.
Motor Disturbances in the Diseases of Children. . 529

AP. MORGAN VANCE, M. D., Louisville.
The Present Status of Corrosive Sublimate in Surgery. 532

A. O. SIMPSON, M. D., Thompson, Pa.
Improvised Splints for Fractured Limbs in Cases of Emergency. 534

SOCIETY REPORTS.

Philadelphia County Medical Society. 535

The Medico-Chirurgical Society of Louisville. . . 540

EDITORIAL

Professional Curtesy. 546

The Medical Examiner s Bill for Pennsylvania. . . 548

TRANSLATIONS 549

CURRENT LITERATURE REVIEWED . . . 551

PERISCOPE

MEDICINE 555

ARMY AND NAVY 555

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THE
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ORIGINAL ARTICLES.

ECLAMPSIA OF PREGNANCY.

I. C. BARNES, M. D., Topeka, Kan.

Authors vary as to the limitation of the term eclampsia; some confining it simply to clonic convulsions which may be idiopathic, symptomatic or sympathetic. But the eclampsia of pregnancy is recognized as having a significance peculiarly its own, due to existing complications in which loss of consciousness, tonic and clonic convulsions and coma follow each other in rapid succession.

While the eclampsia attacks may not be precipitated until labor occurs, or may of itself be sufficient to produce premature labor, or is delayed until the puerperal period, still it must be ascribed to conditions existing during pregnancy otherwise beyond the domain of eclampsia as defined by the obstetrician.

It is not my purpose to impose upon the members of this association by detailing the various theories which have been advanced from time to time to explain the phenomena of eclampsia.

You are all familiar with them, as also with the effect that no sooner has a theory been promulgated and seemingly firmly established upon tenable grounds by its originator, than other observers have presented a line of cases similar in nature and occurring under similar conditions, but ascribing a causation partially or wholly based upon deductions derived from very different physiological and pathological standpoints, and thus have formulated theories which have varied as widely.

It cannot be said that all or any of such deductions are absolutely without foundation, but that error has been made by dwelling too emphatically upon some one phase or manifestation or pathological condition to the exclusion of all others, and of confounding the results of certain conditions with causation; as for instance, ascribing the unconsciousness and coma to a primary anæmia of the brain centres rather than to an anæmia due to vasomotor spasms.

Also so subtile is the human mind, that waves of theories like fancies flit before the vision, and apparently fulfill all the demands that the manifestation of disease requires, but sooner or later the delusion is vanquished by the observation of real facts relating to the etiology of the disease, and these fallacies are expunged.

Again, cases will arise that will not accommodate themselves to any classification, and are known as the exceptions, exhibiting the same phases, but lacking the pre-eminent pathological and physical conditions necessary to ally them with *bona fide* cases.

While true theories very materially aid in the scientific treatment of disease, false theories likewise as greatly mislead, and since all theories are based upon more or less thorough research and the deductions derived therefrom, it follows that the more this research is aided by the modern appliances of minute workmanship in chemical, bacteriological and pathological departments, the less frequently will the etiology of eclampsia be ascribed entirely

to the failure of function of one organ of the body, precipitating upon the system toxic products from the non-elimination of effete material, producing irritation of the central nervous system and thus exciting vasomotor spasms, peripheral irritation due to pressure on tense tissues, or to the hydræmic condition of the blood during pregnancy, or to a neurosis, any more than can be estimated just the amount of disorder and irritation necessary to bring about a climax in certain individuals under other circumstances.

However, investigation of each case, with regard to all details, will enable an approximate estimate to be made which shall ascribe to the different complications existing, a proportionate degree of causation which for a certain period of time, in a certain individual, will destroy consciousness and furnish a stimulant to the vasomotor centres sufficient to set in tonic and clonic contractions the voluntary muscles of the body and thus impede circulation and respiration to a degree that endangers life.

It is not only important to know that a sufficient number of cases have presented symptoms and phases similar in character, and that pathological investigation warrants the explanations which have been made relative to the convulsions due to specified conditions existing during pregnancy, but also to allow latitude as we are obliged to in the etiology of all other diseases in ascribing a symptom to this or that departure from the normal balance of the human system.

Now, it is found that the great majority of cases exhibiting this phenomenon have albuminuria, and that the albumen is due to an acute attack of inflammation of the kidney or to a chronic inflammation upon which is superimposed an acute attack or a congestion, all of which give rise to a more or less complete suppression of urine; but it is also established beyond controversy, that not every woman that has albuminuria during pregnancy will have eclampsia; and that also complete suppression may exist without any untoward results, and that partial suppression is frequently unaccompanied by albumen in the urine.

Still, as a rule the greater number of eclamptics are albuminuric and they do have partial or complete suppression. So that the physician is enabled to successfully ward off many attacks by promoting the secretion of the inactive kidney and securing the elimination of products of disorganization through other channels.

This, as a preventative measure, is of prime value; but as an expedient of relief at time of attack is secondary to normal labor, or labor artificially produced. Hence, the gravity of the case is relative to the length of time supervening between the attack and the completion of pregnancy.

That to the kidney lesion only as a complication of pregnancy, can be ascribed such a certainty of serious results suddenly overwhelming the patient, is demonstrated by the fact that such a lesion existing without this complication does not usually give rise to convulsions unless in very advanced stages.

Some few cases exhibit clearly the neurotic element, in which the discomforts and complications of irritation due to pregnancy are sufficient to excite an explosion of nerve energy; or may properly be ascribed to causes independent of pregnancy, and, therefore, a coincident rather than a result.

It is difficult to understand why convulsions should cease upon the removal of the ovum from the uterus, since the kidney condition still remains unless the pressure of the pregnant uterus proved a sufficient cause to excite an already overcharged nervous system, or that blood pressure was lowered by the relief of distention of the abdominal parietes and more or less compression of abdominal viscera, permitting a filling of the blood-vessels of this region of the body so capable of draining the system of a large portion of its circulating fluid and accomplishing the result more effectually than by means of diaphoretics, purgatives and venesection.

This general relaxation secures greater amenability to therapeutical remedies, and in the majority of cases in the beginning of recovery, opening the way for relief of all other complications.

The complete or partial suppression of urine, which has herertofore resisted all efforts to induce secretion, is gradually relieved.

It would be rather difficult to explain why convulsions, if due to toxæmia alone, cease as soon as the uterus is emptied of its contents, while complete suppression

of urine still exists and consequently there has been no opportunity for the system to unload itself of the retained products of excretion except by the alimentary and cutaneous surfaces, which have hitherto proved ineffectual.

It is easier to see why the coma should become less profound and gradually disappear as the secretion of the kidneys resume normal sway and the power of elimination is gradually increased.

A variety of phenomena usher in an eclamptic attack, some of which are peculiar to eclampsia while others are common to many diseases, both organic and functional, and thus frequently allay suspicion unless care is taken to seek the cause of every symptom, subjective and objective.

The most obvious premonitory symptoms, however, are followed so closely by the attack that not much time is given to relieve the vasomotor tension by depletion through the alimentary and cutaneous surfaces, so that very frequently all efforts to avert are futile.

The same measures are employed for relief as for prevention, with the addition of venesection for immediate effects, and induced labor when all other means have failed.

It is not only a procedure to save the life of the mother but also that of the child which will not survive oft repeated attacks.

Unfortunately the cessation of eclampsia does not always secure uninterrupted restoration to health, since so serious complications accompany or follow that no available resources are able to restore the normal equilibrium.

The gravity of the case bears a somewhat constant relation to the number of convulsive seizures, the greater the number the more unfavorable the prognosis.

REPORT OF CASE.

The case that came under my observation at the Hospital two years ago presented the following characteristics:

The patient was comatose when my colleague arrived, with a history of several convulsions in the last six hours, at the beginning of which, she relapsed into an unconscious condition from which the attendants were unable to arouse her.

A physician in the vicinity was called in, who gave her a purgative and left a sedative mixture with the advice to the friends to get her into a hospital.

Three hours later a message was sent for assistance without specification as to kind.

I was detailed to attend the case which I supposed to be an instrumental delivery; but upon arrival found the condition of affairs as mentioned.

Vaginal examination revealed a cervix of considerable length, an internal os completely closed, with no fixation of presenting part—in fact no attempt at delivery.

The convulsions were typical, and ten were reported within three hours. The bowels had been moved by an enema and the catheter passed but no urine obtained.

An anæsthetic was given at time of convulsions, and also two hypodermics of sulphate of morphia of $\frac{1}{4}$ grain each, during afternoon.

There was no convenience for baths or necessary care in the lodging house of the tenement quarters in which the patient was found, and the only chance for successful treatment lay in the possibility of getting her into the hospital.

Although fearing that the ride in the ambulance of five miles over cobble stone streets, might excite convulsions of so great severity that death from asphyxia would result, yet the journey was accomplished with very little inconvenience and no symptoms of increased irritation were present. The one convulsion came about the regular interval and did not surpass former attacks in severity.

At 7 P. M. arrived at hospital and the patient was immediately placed in a hot bath which was prolonged half an hour. She had two convulsive seizures during the time. A hypodermic of sulphate of morphia $\frac{1}{4}$ grain, was given and a drop of croton oil on tongue.

Phlebotomy of left arm was attempted but unsuccessful, the blood either would not flow, or the incisions were made into superficial veins rather than the deep ones.

Potass-bromide sixty grains and chloral twenty grains, were given by rectum and at 8.20 patient replaced in hot bath and removed in ten minutes.

A few minutes later had two convulsive attacks in quick succession.

Phlebotomy of right arm attempted with little success.

At 8.45 patient had a very severe convulsion and was replaced in hot bath to be removed in ten minutes to a hot pack.

Twenty minutes intervened when convulsive seizures returned.

Vaginal examination revealed the presenting part high, considerable cervix and no attempt at dilatation of the internal os. After some manipulation in this direction an attempt was made to introduce a Barnes dilator, but unsuccessfully.

Forty minutes later there was a severe attack lasting 1¾ minutes.

Patient again placed in hot bath—seventy-two minutes later two more severe seizures, seventeen minutes apart and lasting one and one-half minutes. The pulse 170 and respirations 40.

At 10.33 P. M., a soap and water rectal injection was given and retained.

Fourteen minutes after there was a convulsion of the right side only. Patient was taken from bath in which she had been placed and a catheter passed but no urine obtained.

Dry cups placed over the kidneys and a hypodermic of one-sixth grain of pilocarpin given.

11.56 P. M., A convulsion of right side only and in sixteen minutes another which, in twenty minutes, was followed by a general convulsion.

The temperature was 105.2° A hypodermic of morphine sulphate one-fourth grain was given, and Barnes' dilators successfully introduced. There being a slight attempt at dilatation, this was followed by a convulsion.

Patient placed in hot bath; thirty minutes after there was another convulsion, followed in thirty-five minutes by a convulsion of right side; was taken from bath and put into hot packs and catheter passed but no urine obtained.

Soap and water rectal injections given and retained. In fifty minutes there was a convulsion of right side. The water from retained injections was drawn from the bowel with a rectal tube.

Fifty minutes later a general convulsion supervened. The temperature was 104.6.°

At 6.30 A. M., February 16th, the chloroform which had been given since admission to relieve the intensity of convulsions was increased until complete anæsthesia prevailed. The membranes were ruptured and version attempted but abandoned.

Artificial dilatation being sufficient to deliver, forceps were applied, the head, which was the presenting part, fixed and craniotomy performed. This permitted artificial delivery.

Lacerations of the cervix and perineum were remedied by primary operations. Complete suppression of urine still existed.

A hypodermic of ergot, the fluid extract, twenty-five minims was given, and a ten-grain quinine suppository.

The pulse was 200. A hypodermic of digitalis and also one of pilocarpin was given half an hour afterwards with cups over kidneys and steam bath.

At 9.20 A. M. the catheter was passed and obtained a small amount of urine the first in twenty-four hours, or rather since the patient was taken in charge.

The convulsions ceased immediately upon delivery. Hypodermics consisting of tr. of digitalis five drops and aromatic spirits of ammonia five drops, were given every two hours through the day. Quinine suppositories, five grains every three hours. Peptonized milk given by rectum and cups applied over kidneys.

During the afternoon the restlessness and muttering delirium was relieved by bromides and chloral and cups applied to nape of neck and spine.

One-sixth of a grain of elaterium was given in butter on the tongue.

During the convulsions the patient had almost severed a portion of the left side of the tongue and the inflammation and slough served as an impediment to respiration.

At 6.30 P. M. the breathing became labored with symptoms and physical signs of congestion of the lungs, and flax-seed poultices were applied over the chest.

During the night the restlessness was controlled by bromide and chloral. The pulse was 140 and temperature 103.°

A cough mixture containing ammonium salts was ordered to be taken every two hours.

During the morning of February 17th, a steam bath was given, but since the kidneys were secreting fairly well the cups were discontinued.

About noon patient began taking food and medicine by mouth, and aroused from her coma to a degree that she was able to speak a few words intelligently; the most favorable symptoms since entrance three days before.

In the evening a hypodermic of the hydro-bromate of hyoscine was given, $\frac{1}{100}$ of grain for restlessness.

The pulse was 130 and temperature 104.6.°

The secretion of urine since three hours after delivery gradually increased in quantity, although the albumen fifty per cent. of specimens examined failed to diminish perceptibly. Hyaline, granular and fatty casts were abundant; also blood and granular debris.

During the earlier hours of the evening, however, the pulse became more feeble and respiration more difficult and the coma, which had been partially relieved, deepened, and at 2 A. M., February 18th, the patient died.

Post-mortem examination revealed the lungs œdematous, abdomen filled with dropsical fluid, chronic parenchymetous nephritis with evidence of acute attack.

No examination of the brain was made.

(The pregnancy was eight and one-half months advanced and the lochial discharge normal in quantity and consistency —there being no tendency to excessive hemorrhage.)

There were thirty-six convulsions from noon February 15th, to the morning of February 16th, at 6.30 A. M., with a probability of ten to fourteen before the physician arrived, making about fifty in all and thus coming in the scope of the mortality of fifty per cent. as recognized by the best authorities.

CLINICAL LECTURES.

SENILE AND SECONDARY CATARACTS AND THEIR TREATMENT.

EDWARD JACKSON, A. M., M. D.*

Gentlemen: We will to-day consider the operative treatment of cataract, different phases of which are illustrated by some of the cases to which I wish to call your attention.

SIMPLE EXTRACTION FOLLOWED BY PURULENT CONJUNCTIVITIS; RECOVERY.

Mrs. K., aged sixty years, came here three months ago, complaining of gradual failure of vision, which had progressed until with the right eye she was barely able to count fingers at two feet, and in the left eye she had only light perception. Each pupil was occupied by an opacity of the lens. With the ophthalmoscope the gray of the lens was in the right eye faintly tinged with the red of the fundus reflex, but in the left eye no trace of the fundus reflex was visible. She had in both eyes good quantitative perception of light; that is she could tell promptly and correctly when the light in the dark room was turned up or down, or brought near or removed farther from her. She had also good light projection; that is she could recognize the position of the light in whatever portion of the field of vision it was held. She had therefore senile cataract, uncomplicated and presenting all the indications for operation.

I removed the lens from the left eye by the operation which I now propose to perform on its fellow. The operation itself was without special difficulty or complication, but the next morning the lids were œdematous and the conjunctiva swollen. Within forty-eight hours there was a free purulent discharge from the conjunctiva, so that by the third day she had to be removed from the ward for operative cases for fear that other patients might be infected. On the fifth day the conjunctival discharge was so profuse that the checking of it became a matter of paramount importance, and we commenced the application of a strong solution of nitrate of silver to the everted lids. The healing of the corneal wound was not, however, interrupted, its closure and the refilling of the anterior eye chamber having occurred within the first twenty-four hours; and three weeks after the operation the conjunctival inflammation was well under control, and with the proper correcting lenses she could read part of the ten metre type at five metres.

*Professor of Diseases of the Eye in the Philadelphia Polyclinic Surgeon to Wills' Eye Hospital.

She now returns to have the cataract removed from the right eye. This I proceed to accomplish by the operation of simple extraction. I make a section of the cornea entirely within the clear corneal substance, parallel with the sclero-corneal junction and extending over almost half its circumference. Having completed the section, before laying the cataract knife aside I use its point to open the capsule of the lens. The cutting of the operation is now completed. To effect the delivery of the lens I take in the right hand a tortoise-shell lens scoop with which to make pressure on the eye-ball at the lower part of the cornea, and in the left hand a narrow corneal spatula with which to make counter-pressure on the upper lip of the corneal wound, if it is needed, or to aid in other ways the expulsion of the lens.

The pressure on the lower part of the cornea is made steadily backward, toward the centre of the eye-ball pushing back slightly the lower part of the lens, and being transmitted through the vitreous so that the upper margin of the lens is forced forward, dilating the pupil and entering the corneal wound. This pressure is steadily maintained and augmented until the widest diameter of the lens nucleus emerges through the corneal opening. The escape of the lens lessens the pressure within the eye, but some pressure is steadily maintained until all the cortex has escaped that can be delivered in this way.

In this case there still remains a little lens cortex within the eye, and for its removal I employ washing out of the anterior chamber with a solution of common salt by means of Lippincott's syringe. By directing the stream upon the iris it is made to straighten out in the anterior chamber assuming its normal position. During the washing you notice that quite marked contraction of the pupil has occurred, so that now we have the small circular pupil that is desired at the close of a cataract operation. Still, I will instil a drop of a solutioon of eserine sulphate one-quarter grain, to distilled water one fluid ounce, believing that in doubtful cases its influence is in the direction of preventing prolapse of the iris or its adhesion to the cornea. And to make the result most secure such an instillation is repeated at each dressing until the anterior chamber has been permanently refilled with aqueous humor.

After washing out the conjunctival sac and margins of the lids with a boric acid solution, the patient is told to keep the eyes closed very gently and this dressing is applied. Two or three thicknesses of absorbent gauze are laid on the lids and over this a light mass of absorbent cotton, and the whole held in place by strips of adhesive plaster passing across it from the cheek to the brow. This makes a comfortable dressing that protects the eye from infection, secures it rest, absorbs all discharges, makes no pressure, and is not liable to be dragged by movement of the head on the pillow, as is any form of bandage passing around the head. Its worst defect is that the plaster pulls on the skin when you come to remove it, and is liable to cause the patient to squeeze the eyelids tightly shut. You must guard against this by seeing that the strips of plaster do not catch any of the eyebrows or hairs that they can pull on, and that they are not longer than is necessary.

Such a dressing I continue to use four or five days, changing it usually twice a day, unless the conjunctiva show signs of hyperemia, which is always provoked or aggravated by the poulticing effect of a thick dressing, and whenever evidence of such an effect is noticed I replace this dressing by a couple of strips of gelatine plaster applied directly to the lids; a dressing that does not so well guard against wound infection and is rarely so comfortable, but which avoids the retention of heat and moisture that gives the thicker dressing something the influence of a poultice in causing or aggravating congestion or inflammation of the conjunctiva.

[In this eye there also developed a sharp conjunctivitis with considerable purulent discharge. It was treated in the same manner and the healing proceeded normally, the patient getting her cataract glasses at the end of four weeks, and having with them vision equal to 5-10ths mostly.]

SIMPLE EXTRACTION; PROLAPSUS OF THE IRIS.

This man, P. H., aged sixty-five, had a cataract extracted nine days ago. The lens was large and consisted almost entirely of firm nuclear substance, and this being suspected before the operation, to get as long an incision as possible I placed it nearer to the iris than the usual

point of selection. The patient, too, was restless, and during the first twenty-four hours there occurred a prolapse of the iris. The use of eserine reduced its size but did not entirely restore it, and you now see it as a brown swelling of some two millimetres in diameter at the centre of the scar of the corneal incision. It is now probably at its maximum, and from this time on will shrink until there is nothing left to mark its location but a dark speck in the line of the corneal scar.

This condition, while it is by far the most serious complication that is liable to succeed the simple extraction of cataract, is not nearly so grave an accident as might be supposed from our knowledge of the tendencies of prolapse of the iris occurring after other corneal perforations. In this connection it seems to be quite free from the tendency to go on increasing that makes it so disastrous in many cases of perforating ulcer or laceration of the cornea. This difference is probably due to the altered relations of the iris to the cornea brought about by the removal of the lens from behind it.

This absence of any malignant tendency to persistent increase or to keeping up an inflammation of the iris and related parts, leaves little excuse for any heroic treatment of the prolapse. It is neither necessary or advisable in the mass of cases to incise it or excise it, or even to touch it with the galvano-cautery. In a case of very extensive prolapse it may be proper to resort to one of these measures, but such cases are quite exceptional. You must bear in mind also that a very small part of the iris constituting a prolapse will, at a certain stage, be distended so as to look much larger than it really is, and that its apparent size will vary from time to time according to the amount of such distension. The active treatment had better be preventive, the placing of the corneal incision well in front of the iris, doing an iridectomy where the iris cannot be fully returned to normal position at the time of operation, and the regular instillation of eserine if it is so returned. Then, if the prolapse does occur some time after the operation, treat it on the expectant plan, and the ultimate result will be almost as good in these worst cases of simple extraction as it is in the average case of extraction with iridectomy.

The occurrence of prolapse somewhat protracts the process of healing, increases, at least for a time, the amount of post-operative astigmatism, and prolongs the period during which the astigmatism is diminishing, and so delays the final adjustment of glasses. But my impression is that so far as its permanent usefulness, and continued sound nutrition and freedom from liability to other disease are concerned, an eye that has suffered prolapse after the simple extraction of cataract is as safe as an eye that has suffered iridectomy during the operation.

[From this time the prolapse diminished, the eye was free from irritation by the thirtieth day when he left the hospital. Glasses were finally adjusted in the eighth week after the extraction. He required +12. sph.+3.D.cyl. axis 175° and with this he had vision=5-15ths, which can undoubtedly be improved materially by needling the lense capsule.]

SECONDARY CATARACT; OPERATION.

From this man, J. G., aged sixty-three, I removed both lenses for cataract a little over a year ago. The operation done was the simple extraction, and it has left the perfect iris and pupil that some suppose are its chief advantages, but which are usually quite subordinate to its superior safety and greater ease of accomplishment. The right eye was operated on first, and the left a few days later. In the right it was found that some opacity of the capsule or remains of cortex interfered with the result of the extraction, so the capsule in that eye was needled. He left the hospital with 5-5ths. vision in the right eye and 5-10ths. vision in the left, with his correcting glasses.

He returns now with the vision in the right eye still as good as ever, but complaining that there has been progressive failure of vision in the left eye. As this is the eye in which the capsule was left undisturbed, I immediately suspect that changes in that membrane, either partial opacity or wrinkling, are the cause of the progressive loss of vision. Certainly in a large majority of cases, if not in all, there occur within a year or two after the extraction of the lens secondary changes in the remaining portion of its capsule that unfit it for the proper transmission of light, and render some secondary operation necessary in order that the patient may enjoy the best possible vision.

Upon examination by oblique illumination and with the ophthalmoscope we find the capsule wrinkled and partially opaque in each eye. But in the right there is a triangular opening in this membrane through which the patient sees clearly. In many of these cases although very little opacity is to be found the wrinkling alone, by the irregular astigmatism that it causes, constitutes a complete bar to good vision, and that is just the condition of this case.

I shall now attempt to make a sufficient opening in this wrinkled capsule to allow of good vision through it. Such an opening does not have to be very large, yet it is often quite difficult to secure it on account of the extreme elasticity of the membrane with which we have to deal. In order to get as free movement as possible for the cutting edge of the needle, the entrance is made at the extreme periphery of the cornea. At this part the needle is necessarily fixed and the farther away the point of cutting the capsule from this fixed point the freer the movement of the cutting edge. Sometimes to get still freer movement it is well to introduce the needle through the sclerotic, back of the ciliary region, and make the cut in the membrane from behind.

In this case I introduce the knife-needle at the periphery of the clear cornea on the temporal side, pierce the membrane near the lower nasal margin of the pupil and make the incision thence to the lower temporal border. Then the knife is withdrawn sufficiently to bring its point in front of the membrane and it is made to transfix it at the upper margin of the pupil and cut downward. In this way a T-shaped incision is secured, which is dilated by protruding viterous into a sufficiently large clear pupil.

For the after treatment of this case, duboisin sulphate is to be instilled twice a day until the eye is quite free from redness. For the first few hours he will have the eye covered with a little absorbent cotton and this muslin shade which we call here a "Liebreich bandage," although it is entirely different from the knitted bandage described by that London surgeon. This closing of the eye is merely to exclude external contamination, until the little corneal wound is quite closed, which will be in a very few hours. After that he will wear dark glases until the effect of the duboisin has passed off, and before he leaves the hospital we will carefully test his refraction again. Not because it is likely to be changed by this operation, but to see if it has changed materially since shortly after the primary operation when his glasses were adjusted.

Drunk or Dying.

The uncertainty of diagnosis in head injuries has once more been illustrated by a case that recently occurred at the San Francisco Receiving Hospital (*Occ. Med. Times*). On September 3, 1892, M. C. Shaw, aged 37, a civil engineer by profession, was knocked down by a cable car. He was dazed by the blow, but seemed to recover consciousness in a few minutes. The patrol was summoned, and, though he protested he was not hurt, and wanted to go home, his friends thought best to bring him to the hospital. The assistant surgeon on duty found several abrasions and contusions about the forehead, but no certain signs of serious injury. The patient, however, presented apparent symptoms of intoxication. He had walked into the hospital with a slightly unsteady gait, talked a great deal, declaring that it was nonsense to dress the abrasions on his head, took money from his pockets to pay the surgeon and steward for their trouble, and in many ways acted as an intoxicated person would. From the nature of the accident, however, the surgeon suspected that there might be internal injuries, and accordingly entered the diagnosis on the books as "doubtful." The man was placed in the hospital ward and kept for observation. He appeared to fall asleep at once, but never awoke. Six hours after entering he died. A post-mortem examination showed fracture at the base of the skull, in the occipital bone. The external injuries were all in the fore part of the head, and as the occipital region showed no wound, the fracture was evidently from contre coup.

"Who makes the kittens, Jackie?" "Why, God makes them, Ethel. He doesn't make them as He does babies, one by one, but He just says, 'Let there be kittens,' and there are kittens."

COMMUNICATIONS.

HYPODERMATIC MEDICATION IN SYPHILIS.*

L. WOLFF, M. D., PHILADELPHIA.†

Amongst the therapeutic methods which are largely employed on the continent of Europe, but have found very few adherents in this country is, no doubt, the hypodermatic treatment of syphilis. Although proposed and practiced in the early part of 1860, it was some time before it was extensively employed even abroad. This was, no doubt, largely due to the fact that it was little understood, that, from temerity, the doses employed were by far too small, and results, therefore, not brilliant, as well as from fear of the formation of abscesses and the necessary amount of pain accompanying such medication. The pain accompanying it is today still an argument against its employment that is not to be overcome. If we, however, consider that in the principal medical centres of continental Europe little or almost no mercury is given internally any more, even the pain accompanying and following the injections must be outweighed by the results. While the first experiments on hypodermatic medication in syphilis were made with solutions of corrosive sublimate, the insoluble mercurials were soon substituted by Scarenzio and others. Therefore, we may divide the mercurials into those preparations which are soluble and those which are insoluble mercurials. It was found that if insoluble mercurials were introduced beneath the skin they were rapidly absorbed, that they were soon found in the urine, and, also, often produced the untoward effects of mercury, besides their characteristic inhibiting and curative influence over the lesions of syphilis.

In a former paper on this subject (*Therapeutic Gazette,* November 15, 1889) I dwelt on the history of this method of medication and gave, also, a synopsis of the literature on the subject. I shall, therefore, in this paper, consider principally my experience with this treatment and with the various agents so employed. During my student days I had the opportunity of watching and practising this method, and I have continued to employ it to this day in a large and varied practise which has brought, perhaps, to me an unusual number of cases of early and secondary syphilis. Though I have again and again abandoned it, owing to the pain it occasioned, I have always had to revert to it in order to satisfy my patients, who, if they had been treated hypodermically once, and were then treated with mercurials taken by the mouth, would gladly stand the pain of the injections rather than the slow results and the digestive derangement caused by the older methods of medication.

I usually begin the injections of corrosive sublimate in the intra-scapular region on one side and about two inches from the posterior vertebral processes, and continue down the back in the costal interspaces—the injections being about one or one and a half inches apart. The effect of the injections on still open primary sores, on indurated glands, on macular syphilides, and on pharyngeal ulcerations may be said to be almost magical. It is noticeable that within a few days, and usually within one week or ten days, all these signs have disappeared. The same beneficent results may, also, be said to take place in specific iritis and choroiditis, and it is especially in these two affections that I consider the hypodermatic administration of corrosive sublimate, in the doses and manner mentioned, of the greatest value. Papular eruptions do not show the same tendency to disappear rapidly under the hypodermatic treatment, but have usually faded within a few weeks. The effect on luetic fever and nocturnal pains is so marked that with the first or second injection the patient notices a marked improvement. I never use less than a one-fourth grain injection at one time and generally employ a one per cent.

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solution in distilled water, filling a syringe of twenty-five minims capacity. These injections are continued daily, and during the first week or two patients stand the treatment fairly well. There is rarely, during this period, any evidence of soreness of the mouth or gums, nor is there any intestinal trouble noticeable. After the entire back, on both sides, had been gone over with injections, many of which have left quite sensitive indurations, their repetition in or near the old places prove quite painful, and it is only then that real complaints from patients are heard. Usually after eighteen or twenty injections tumefaction of the gums becomes marked, and gingivitis is often noticed. The daily injections are then intermitted, and are made at intervals of two, three or four days, the untoward symptoms rapidly disappearing during such intervals. The total number of injections usually made in any one treatment is about twenty-five, but I have continued them to the number of thirty or thirty-five, when marked pigmentation of the local lesions supervened. A good rule may be to carry on hyper-medication for about two weeks after the total disappearance of all symptoms. It is, of course, understood that during this time the patient is to be supported by a liberal diet, by milk punches, and, when the digestion is impaired, by tonics and quinine. The mouth should be kept scrupulously clean, the teeth being cleansed after each meal and at bedtime with a soft brush dipped in a solution of one drachm of potassium chlorate to six ounces of water, and containing, also, a drop of carbolic acid to each fluid ounce. While warm full baths or steam and hot-air baths are adjuvants to the treatment, the cold bath should be interdicted as well as exposure to cold and deprivations. I may safely say that I have made thousands of these injections, and have yet to record a case where they have been followed by abscess or sloughing. All of my cases so treated were ambulant, and I do not remember that any of them have lost a day from their usual vocations.

The immediate effects of the corrosive sublimate have been so uniformly good that I need to consider now only the remote effects on the progress of the disease and its liability to relapses. The permanency of a remedy in syphilis is one of the features of the greatest importance, and here I must say that as rapid as is the beneficial effect of this method of medication, there is a corresponding large number of relapses. Of the cases that I have so treated, and of which I have been able to keep a record, I can safely state that in about 60 per cent. no further symptoms developed. I have notes on a number who subsequently married and raised apparently healthy offspring. Of the remaining 40 per cent., however, I cannot say that they have done so well, and many of them after receiving two, three, and even four courses of treatment by injection had to submit to treatment by systematic inuction before the tendency to relapse has been overcome.

It is this tendency to relapses which has caused me to abandon hypodermatic injections after a second failure as to permanency of cure. It made me investigate the many other mercurials suitable for hypodermatic medication. It has been experimentally proven by Vajda, of Vienna ("Ueber den Einfluss des Queck-silbers auf den syphilitischen process"), that the iodides inhibited the elimination of mercury by the kidneys, and that the slower the elimination the greater the safety from relapses. For this reason it has been my practice to give from five to ten grains of potassium iodide three times daily, after the injection treatment, for months to come; but even this plan has not always prevented frequent relapses. Acting on this indication, and at the suggestion of my friend Dr. Thomas H. Fenton, I have tried injections of iodo-hydrargyrate of potassium, a compound of iodine and mercury, but I have found these injections no less painful, and their permanency has not been greater in my hands than with the corrosive sublimate treatment. In respect to permanency, it is said that the injections of the insoluble mercurials are of greater benefit than the soluble ones. This might be inferred from the fact that their conversion into a soluble compound beneath the skin is a slower process, and while thus a mild continued mercurialization is produced the injections need not be repeated so often. The insoluble mercurials have, however, the disadvantage of not being always aseptic, nor of being readily rendered so. It is true that with the introduction of vaseline oil as a vehicle for their hypo-

dermatic administration they can be rendered both less septic as well as less painful.

At the head of the insoluble preparations, so far as efficiency is concerned, calomel must figure. I give below the formula for its use, as well as the formulæ for other of the insoluble mercurials, according to Professor Edward Lang in his "Ordinations Formeln:"

℞ Calomel } .....āa 4.5 grammes.
Vaseline oil }
Lanolin..... 4 "

Each c.cm. contains 0.371 grammes of mercury, 0.1 c.cm. to be injected not oftener than two or three times the first week.

The precipitated mercuric oxide (hydrarg. oxid. flav.) comes next.

℞ Yellow oxide of mercury..... 4 grammes.
Vaseline oil..... 4.5 "
Lanolin..... 3.5 "

Each c.cm. contains 0.391 grammes of mercury. To be used as the calomel injection.

The salicylate of mercury is lauded very highly, and is prepared for injection as follows:

℞ Salicylate of mercury..... 7 grammes.
Vaseline oil..... 4 "
Lanolin..... 2 "

Each c cm. contains 0.391 grammes of mercury.

The latest preparation and, at the present time, the one generally employed in the hospitals of Paris, even by the veteran Fournier, is the mercurous oxide, which is really a mercurous-mercuric oxide, but better known as the black oxide of mercury. It is used as per following formula:

℞ Black oxide of mercury..... 4.7 grammes.
Vaseline oil..... 6.2 "
Lanolin..... 3.1 "

Each c.cm. containing 0.39 grammes of mercury, and to be used as the other preparations.

I might go on and quote in the same manner the thymol-acetate, the diphenylate, and the sozoiodolate of mercury and other forms of the drug, but, as those named are the preparations generally used, I will omit the others.

It will appear from the above that, after all, the virtues of the preparations quoted consist in the amount of mercury they contain and in the slowness of its conversion beneath the skin. The more rapidly converted the sooner the lesions disappear, the more mercury introduced with safety to the general health the greater the curative effect on syphilis; but the slower and more persistent the conversion the greater the permanency of the treatment and the likelihood of a total extinction of the syphilitic poison. It may be said against these insoluble mercurials, and with some force, that their advantage over the soluble preparations is only by their slower action, while the marked local reaction which they produce is quite as much as with the soluble mercurials. Such is really the case, and the desideratum, therefore, seems to be to employ a preparation that will produce the least reaction and that will be slowly converted, while least in its probability to produce untoward effects. Professor Edward Lang, of Vienna, some years ago experimented on the direct introduction of metallic mercury in minute subdivision as being nearest to the ideal method of inunctions, which yet hold the highest place in permanency in the treatment of syphilis. He found that they were readily borne, that they produced little or no local reaction, and, an acconnt of the slow conversion of the mercury, needed repetition only at long intervals. He claimed that the introduction of the metalic mercury hypodermically exercised an influence over the syphilitic process which was in direct proportion to its conversion, which could be studied by its excretion through the kidneys. This appealed to me as one of the methods most likely to prove more permanent than any of the others, and I introduced it in my private practice as well as in the wards of the German Hospital under my control.

To fully describe this method I must mention the manner of its preparation for hypodermic use, as given by Professor Lang in his "Ordinations Formeln." This consists in first making an ointment of mercury with lanolin, as follows:

Anhydric lanolin, 15 grammes; dissolve in q. s. chloroform 50 grammes, and evaporate the cloroform by continued stirring until the weight is 30 grammes, then add pure metallic mercury, 30 grammes, and continue stirring until all the chloroform is evaporated and the mercury is perfectly extinguished. (This can be recognized, if, by spreading with a spatula on paper, no mercury globules are visible by means of a magnifying glass).

This is his strong lanolin mercurial ointment, and it forms the basis for his oleum cinereum or gray oil. Of the latter he has two preparations, according to the dilutions, the 50 per cent. and the 30 per cent. oil. The formula for the former is as follows:

℞ Strong lanolin mercurial ointment..9 grammes.
Olive, almond, or vaseline oil..... 3 "
Mix well.

This contains in each 0.05 c.cm. to 0.04 c. cm. of mercury. 0.05 c.cm. is the average dose for injections, but if it is desirable to inject double the quantity it is best done in two different places. To produce a very active effect it is advisable to inject twice a week 0.05 c.cm. of this strong oil until all symptoms have disappeared. After that, and to prevent relapses, 0.05 c.cm. should be injected about once a week or once in two weeks for some time afterward. All injections should be made, beneath the skin, in the back, about one inch from the median line, the semi-solid mixture being previously warmed by immersion in hot water until it becomes fluid. Lang also makes use of injections of 0.05 c.cm., two to four times during the first week, and subsequently every week, and later every two weeks, the same amount. He also recommends a milder gray oil, made as follows from the strong lanolin mercurial ointment:

℞ Strong lanolin mercurial ointment 4.5 grammes.
Oil of sweet almonds (or olive oil or vaseline oil) ..... 5.5 "
M.

Each c.cm. of this contains 0.366 grammes of this mercury. This is termed the 30 per cent. gray oil. Of this oil one-tenth c.cm. is the average injection made in two places of the back.

These formulæ, complicated as they may seem, can be easily worked out, and when once the lanolin mercurial ointment is made the dilution requires very little time, as but small quantities are required; a half ounce will last for weeks and, if necessary, should be made fresh every month or two, although these oils really keep a much longer period.

The syringe for injections should be accurately gauged and sub-divided into 0.1 c.cm. and tenth parts thereof. The syringes, as made by Reiner, also Leiter, of Vienna, are used for that purpose, the total capacity of each being a half of a cubic centimetre. They have been accurately gauged, and a certificate of occuracy accompanies each. While it might be well to disinfect the needles and syringe before using, by syringing them with a 4 per cent. carbolic water, I have found that there is but little danger in private practice even if this precaution is not observed. The gluteal regions are said not to be very suitable for these injections.

In the use of the gray oil it has been my practice to inject 0.1 c.cm. every week for the first four to six weeks. Usually macular eruptions fade after the second or third injection, papular ones after the fourth or fifth. Examination of the urine showed the presence of mercury within the first week, and its presence was noted for a month and more after all injections had been stopped. The injections of smaller quantities (0.1 c.cm. of the 30 per cent. oil) in different parts of the back are of greater advantage than the injection of double the amount in one place, the urine showing the mercury sooner in the first case than in the second. The only precaution to be observed in the employment of the gray oil is not to use too much. It is a frequent temptation when the curative process is slow to increase the amount injected or to repeat it oftener. This is to be avoided, as the mercury is only slowly converted and accumulates to the point when it manifests its potency over the syphilitic process. Another precaution to be observed is to pay careful attention to the teeth and mouth. As the development of absorbable mercurial compounds is progressive the injections should be discontinued or made less, even upon the slightest effect noticed on the gums. This medication is a most effective and potent one, and I can readily see how, by lack of precaution, severe salivation might ensue. Let no one suppose that, as there is little reaction immediately upon the injection, it might be pushed without hesitation. The literature has several cases where an uncalled-for free use of this remedy has caused not only bad but also fatal results. In my experience such has not been the case, although I have employed it with uniformly happy results in a large number of cases.

To sum up the indications for the hypodermatic medication of syphilis, I should say that in cases where the symptoms require urgency of treatment I would employ the injection of a one-fourth grain of corrosive sublimate, at first daily and subsequently every other day until about twenty-five injections had been given. If, after this, all the symptoms have not entirely subsided (entire absence of all pigmentation) I should resort to injec-

tions of the 30 per cent. gray oil, 0.1 c.cm. in one or two places in the back once a week until six to eight injections have been made. If, after a shorter or longer period without medication, further manifestations of syphilis should appear, the same series of injections with gray oil should be made and thus continued until, after long lapses between treatment, no further return of the lesions appears. The injections of corrosive sublimate, as described, have the advantage of more rapid action, and will often suffice. I should always recommend their use at first as preferable to others, but when relapses occur the injections of gray oil are both less painful and promise greater immunity from subsequent relapses.

MOTOR DISTURBANCES IN THE DISEASES OF CHILDREN.

A. W. WILMARTH, M. D.†

In this brief paper I have endeavored to condense from the voluminous and scattered literature on nervous disease in children, a few practical points which may be of service in the diagnosis and prognosis of such cases, as we meet them in every day practice.

Gowers, Bramwell, Osler, Sachs, McNutt, Buzzard and others have written at length on this class of disease, and it is from their writings I have drawn largely the material for this paper, adding a little from my own experience among cases of juvenile nervous disease.

The most significant symptoms of irritative or destructive changes in the nervous system of the young, are disturbances of the muscular system as evidenced by paralysis or convulsions, in changes in the electric and so-called reflex reactions. Convulsion is perhaps the most frequent form of expression of nervous irritability. It varies greatly in frequency and form. As the protest of the nervous system against an irritation, seemingly beyond its power of endurance, from the teasing irritation of an erupting tooth in the dentition of infancy, or the poison of one of the specific fevers, we are accustomed to see spasm result and are not liable to be greatly alarmed by its occurrence. When the immediate cause of irritation has seemingly disappeared and the occasional spasm still re-occurs at longer or shorter intervals, the questions at once confront us: When and what is the cause of this trouble? What is the probability of ultimate recovery?

That well-marked epileptic spasm, continuing for a considerable period, may occasionally result from continued peripheral irritation, such as optical defects, nasal polypi, etc., to disappear with the removal of the local cause, seems to be proved by abundant clinical testimony. That they arise from such causes nearly so often as some specialists would have us believe, may well be doubted. But such causes are operative so often that we should never fail to look for them, if possible, before falling back on the habitual use of bromides or other routine treatment. Such spasms may be expected to be general in character, and may coincide with increased pain or irritation in the diseased parts.

There is nothing in the ordinary general convulsion to require more than passing notice, but in the period of their occurrence and in the location of the so-called Jacksonian epilepsy, there is valuable information to be gained. In a recent publication I have given reasons in full for believing that when in epilepsy, aside from exciting causes of a temporary nature, convulsions show a tendency to return at regular intervals—say every 4th, 10th, or 14th day, or other definite period, —there is generally, in fact almost invariably, a definite organic lesion of the brain whose constant irritation finds expression through these regular explosions of nerve force. Permanent recovery in such cases can rarely be looked for.

Cases of Jacksonian epilepsy form an interesting study, for in them we can definitely locate the seat of irritation and enable the surgeon in suitable cases to cut down and remove the cause of mischief. Without going into detail, in this interest-

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ing form of spasmodic trouble, I will cite one typical case.

L. D., aged 16, walked into the office one day from his room near by, dazed and frightened, but able to find his way along. All the muscles on the right side of his face supplied by the seventh nerve were in a condition of rapid, clonic spasm. No other muscles were implicated. After about a minute's time this ceased, and the heavy breathing and tendency to sleep followed as in ordinary general convulsion, but not to the same degree. Occasionally, in this boy, the convulsion becomes severe and general, but always originates in this group of muscles. This case in its earlier stages would probably have been benefitted by operation; but now mental decadence indicates diffused cerebral changes.

The minor form of epilepsy, *petit mal*, is multiform in its phenomena and grave in its significance. It is generally indicative of beginning change in the intracranial organs, and unless early and vigorous treatment is begun, this will almost surely end in mental failure. It is liable to be overlooked in children; or if noticed, to escape treatment on account of its apparent insignificance. When met, it is not to be cured by "worm powders," though the family be ever so sure that these parasites are present; nor yet checked by large doses of bromides, for the attacks of themselves do little harm and may be our only indication of cerebral trouble; but every medical and hygienic measure should be employed to build up the brain to resist the destructive process that threatens it. I have notes of one case of a rare form of this disorder.

Chas. D., born 1880; father and mother both drunkards; the latter subject to violent fits of rage during this pregnancy, and below average intelligence. Child is strong, well formed, but mute. An unexpected light touch on the top of his head and he will fall to the ground as if struck down with a club. Rises immediately, looking pale and dazed, and regains full consciousness at once. If he sees your intention before he is touched, no effect follows. Hughlings Jackson describes one similar case. I have seen no others recorded. This peculiarity disappeared in time and well marked Jacksonian epilepsy followed.

One more clinical picture of convulsion will, perhaps, be of interest.

A child is found in a long series of convulsions, more generally of the Jacksonian type. Mild fever; convulsions usually short and not severe; period of unconciousness bridging the intervals between the spasms. These may last several hours, but more frequently a day or two, when, if the child does not die of exhaustion, some recovery takes place. I say *some* recovery, for the evidences of intra-cranial mischief are very apparent. If paralysis results, it will be complete and permanent. If the motor region escapes and other portions of the brain are attacked, the sensory or mental loss will be equally apparent. This is the effect of the so-called tuberous or hypertrophic sclerosis.

Convulsive attacks during the eruptive fevers may stimulate this condition, but they are of shorter duration, the spasm more severe, the stupor more profound, and the prognosis far more hopeful. I have used the term "Jacksonian epilepsy" in rather a broad sense. It is generally asserted that in this type consciousness is retained, but in nearly 400 cases of epilepsy of which I have had the care, I have yet to see a case in which consciousness was not in some degree, however slightly, affected.

Another frequent symptom of interference with functional activity or of actual organic change in the nervous system, is paralysis. This may exist at birth or may develop at any later period, and by its method of development in conjunction with other evidence of imperfect action in the nervous mechanism, may throw considerable light on the location and sometimes on the nature of the lesion of which it is a symptom. Paralysis at birth may be due to non-development, to intrauterine disease or to injury during delivery. An easy birth would exclude the latter cause.

Correct diagnosis is of importance in our judgment of the future of the case, for while Gowers asserts that in nearly all cases of birth palsy, when absolute idiocy does not result, some improvement follows. I am certain when the cause, be it disease or non-development, antedates delivery, marked improvement *rarely* occurs. In these cases, paralysis of non-development are usually of the flaccid variety. While more or less rigidity and generally complicating epilepsy, marks early sclerotic change resulting from fœtal or early infantile disease. One point should never

be lost sight of in any case where serious disease or injury has occurred in the upper brain in early infancy. That is, that mental development will very generally be checked or destroyed, and feeble-mindedness result. We have only to remember that competent judges place the number of this short-lived class, in this State alone, at nearly 9000, to realize how many minds are ruined by infantile disease each year.

The causes, nature and locality of the lesion in the paralysis of early childhood are better understood than in the congenital types. The more usual forms are commonly traced to one of three causes: 1, Result of infectious disease. 2, Anterior poliomyelitis or acute infantile spinal paralysis. 3, Cerebral lesion.

The first variety is often seen as a complication or sequel of diphtheria; or less often, of typhoid fever or pneumonia. It may appear in malarial fever. It is generally looked upon as the result on the peripheral nerves of the specific poison, and is the least grave of the three general forms. Its diagnosis is usually made clear by the accompanying symptoms.

Where paralysis results from disease of the nerve cells of the anterior horn of the spinal cord (constituting acute infantile spinal paralysis), it is heralded by considerable fever, rarely with convulsions, and may involve the muscular system quite extensively. The paralysis very rapidly reaches its highest degree, is followed by rapid wasting of the muscles, affection of the reflexes and diminution of faradic excitability. Bramwell states that fibrillary twitchings are often seen in these cases. It is often paraplegic, sometimes monoplegic, very rarely hemiplegic. Cerebral paralysis, on the contrary, is generally ushered in by convulsions, is most frequently hemiplegic. The most positive diagnostic test as to where the paralysis originates, is by the use of the galvanic and faradic currents. In anterior poliomyelitis, the excitability of the muscle to the faradic current soon disappears, and the slow but strong response to the galvanic current, known as the reaction of degeneration (R. D.), develops. Dr. Buzzard states that the faradic excitability may disappear entirely within a week, and the principle diagnostic sign of R. D. develop. This reaction does not exist in true cerebral palsy. Authors lay great stress on this symptom, not only for its diagnostic value, but also for its significance in prognosis. Miller and Duchenne state that muscles in which faradic excitability has entirely disappeared in four or five days, are permanently paralyzed. In those in which some excitability remains after the tenth or twelfth day, motility may be expected to return even though some months may be required. Buzzard entertains an even more hopeful view, especially when the loss of faradic excitability is slow. The loss of galvanic excitability is of grave import. Bartholow sums up these reactions as follows: When a child having one or more members paralyzed as a consequence of an anterior poliomyelitis is brought to you for treatment, you may promise much if the muscles react to the faradic current, however slightly. Be reserved if they react only to the galvanic current. Promise nothing when neither current causes the least movement. Paralysis may be present in spinal pachy-meningitis. Pain on movement and anæsthesia will help clear the diagnosis in such cases.

I think those few diagnostic points would be sufficient in most cases to distinguish the seat of origin of juvenile paralysis and so to select its treatment. In giving our opinion of the outcome of a case we should not forget that the age of onset has an important bearing in cerebral palsies. Osler states that the younger the child, the greater the liability to serious and permanent damage. The reverse holds true in epilepsy.

On the subject of the reflexes, we will consider at length only two, the patella reflex and the ankle clonus, and in dealing with them will quote some conclusions from the writings of Drs. Remak and Ziehen. In testing these reflexes in children we should exclude post-febrile paralysis and recent convulsions, both of which may decidedly influence them.

Unilateral exaggeration of patella reflex is always significant of disease. Bilateral is only significant when ankle clonus co-exists.

Ankle clonus may be physiological in children. Diminished plantar reflex with exaggerated knee jerk signifies functional and not organic disease.

Ankle clonus has the same relation to the lateral columns as Westphal's symptom has to the posterior columns. In

ordinary apoplexy with loss of consciousness, a primary foot clonus develops, which shortly disappears. If, in from two weeks to two months, ankle clonus reappears in the paralyzed limb it means secondary degeneration of the lateral columns and a certain anticipation of permanent contracture.

Unilateral ankle clonus in hemiplegia indicates a central lesion and almost always excludes a spinal affection.

The maintenance of patella reflex in spite of partial R. D., occurs probably only in polio-myelitis anterior. (*a*) The loss of patella reflex generally follows all cases of severe paralysis with relaxation of muscles, and diminished irritability of the nerves, whether of spinal or peripheral origin, and in case of recovery, this lasts longer than R. D. (*b*) Patella reflex fails in peripheral neuritis of mixed nerves. (*c*) Also fails in complete peripheral paralysis when there is no R. D.

In conclusion, I would say that in all cases where patella reflex fails in children, we should never fail to examine the spine in the dorsal and lumbar regions for evidence of Pott's disease with secondary inplication of the cord.

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THE PRESENT STATUS OF CORROSIVE SUBLIMATE IN SURGERY.*

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I want to say a few words on a subject in which we are all inte rested—the present status of corrosive sublimate in surgery. For a long time all of us who work in general surgery have wondered why we failed to get good results in cases where we thought we had done everything that could be done to assure an antiseptic condition of the part. Two years ago I ceased the use of solutions particularly in fresh wounds, and have lately ceased to use them at all, even in suppurating conditions. Three years ago Welch, of the Johns-Hopkins University, made a report in which he mentioned numerous experiments with sublimate to find out something about the action and power of this drug. He has given us reasons why we often times fail in getting an aseptic condition or have an aseptic outcome of a wound from the use of this substance. It has been proven that the inhibiting power of bichloride of mercury is just so much, which is in proportion to the albuminous material it has to deal with. I think it is proven beyond all doubt by his experiments and by those of his assistants, particularly Abbott, that the present position of bichloride is rather against its use, and that it does more harm than good. If the solution be of sufficient strength to have any effect upon germs already there, it will cause necrosis and prevent healing of the wound, as well as producing a better nidus for the production and operation of other micro-organisms.

I will read from Dr. Abbott's paper, his conclusions upon this subject which may be of interest:

"What conclusions are we justified in drawing from such results as those obtained in the experiments here reported?

(1), It is seen that under the most favorable conditions a given amount of sublimate has the property of rendering inert only a certain number of individual organisms. That is to say the process is a definite chemical one taking place between the protoplasm of the individual bacteria and the sublimate in solution.

(2), That the disinfecting activity of the sublimate against organisms is profoundly influenced by the proportion of albuminous material contained in the medium in which the bacteria are present.

(3), That the relation between the golden pyogenic staphylococci and sublimate is not a constant one, organisms

* Read before the Medico-Chirurgical Society of Louisville, Feb. 17th, 1893.

from different sources and of different ages behaving differently when exposed to the same amount of the disinfectant for the same length of time.

(4), That the organisms which survive the exposure to the sublimate may experience a temporary attenuation. This attenuation, however, may be caused to disappear by successive cultivation in normal media.

(5), That by the method employed in these experiments, it is possible to select from a culture the most resistant forms in that culture.

(6), That many of the results of previous experimenters, who have assigned to corrosive sublimate more powerful disinfectant properties against the staphylococcus pyogenes aureus in cultures than the observations reported in this paper indicate, are attributable to the neglect of certain precautions now recognized as essential to the proper conduct of such experiments."

"In the light of these experiments and those of the experimenters quoted in this paper, it is plain that for use in surgical practice the solutions of corrosive sublimate do not possess all the advantages hitherto attributed to them.

"To the employment of sublimate solutions upon wound-surfaces it is plain that there exist at least two serious objections:

First, the albumen of the tissues and fluids of the body tends to diminish the strength of, or indeed renders entirely inert the solution employed.

And second, the integrity of the tissues is materially injured by the application of solutions of this salt."

"The first objection cannot be met with certainty, for the surgeon possesses no means by which he can determine the albuminous material with which his solutions are to come in contact, and in any case this large amount of albuminous material is an almost insuperable obstacle to complete disinfection with sublimate. He is, therefore, never in a position to say, *a priori*, that his efforts at disinfection of the wound are, or are not, successful."

"The second objection is equally serious. During the past two years we have had sufficient evidence to lead us to believe that the normal tissues and fluids of the body possess the power of rendering inert many kinds of organisms which may have gained access to them. This function is, therefore, diminished, or, indeed, may be quite destroyed, by any agent which brings about alterations in the constitution of these tissues. We know that just such changes as those to which we refer, are known to follow the application of sublimate solutions. It is plain that if we bring about in these tissues a condition of superficial necrosis—the condition following upon the application of sublimate—they are much less able to resist the inroads of infectious organisms than they would have been had they been left in their natural condition."

"As a disinfectant in the strict sense of the word, there are perhaps few substances which possess the property in a higher degree than does corrosive sublimate, but at the same time there is nothing which is employed for this purpose, that requires greater care in its manipulation in order to obtain its best results, than does this salt. As we have seen, its action is influenced by a number of conditions which in practical application it is difficult if not quite impossible, to control."

"For these reasons we seem hardly justified in continuing to give to it the first place in the list of substances which may be employed practically for the purpose of rendering harmless, materials containing the germs of infectious maladies."

I have found in my practical work. that since I ceased the use of sublimate solutions I have had much more uniformly good results by using simply sterilized water.

A case of failure of orificial methods has been reported in the *Jour. of Orificial Sur.* for November. A man was afflicted with impotency (variety and supposed cause not given). "All-round orificial work was done, including the American operation, circumcision, and removal of a portion of the scrotum; yet after a year no relief is reported." Why portions of the penis, testicle and vas deferens were not removed, is not stated.

A Dressing for Cuts, Sores, Scalds, Etc., Is made by boiling together 1 pound of resin and 3 ounces of clarified beef suet; then add 2 ounces of beeswax, boil one-half hour longer and allow to cool.—*Ex.*

IMPROVISED SPLINTS FOR FRACTURED LIMBS IN CASES OF EMERGENCY.

A. O. SIMPSON, M. D., Thompson, Pa.

In spite of the rapid strides that surgical science has made in our day and the great improvements in the art of treatment, emergencies do arise that tax the mechanical ingenuity of the surgeon to cope with. As an illustration in point I will cite a couple of cases:

I. On the 15th of July, 1888, while returning home from a neighboring town, I was stopped on the road and told that a Hungarian had broken his leg while wrestling. On going into the house I found a muscular railroad workingman lying on the bed with a broken leg. Both bones were broken about three inches above the ankle, the fracture being an oblique one and simple. I could not find any pasteboard in the house nor had I any splints or apparatus with me. I did however, have in my medicine case a small roller bandage and some adhesive plaster and chloroform. I administered a small quantity of chloroform; adjusted the broken bones; placed four strips about five inches long and one inch wide longitudually over seat of fracture; wound a strip of adhesive plaster spirally around the leg, over the longitudinal strips; over that I wound about two yards of muslin bandage, fastened it with needle and thread; placed the broken limb on a soft pillow, and then went in quest of a splint. Not far from the house I had seen some small second growth maple trees. I took a sharp ax with me, selected a tree of about the size of the lower part of the leg, girdled the tree and removed the bark from it in a section about ten inches in length. Then I went back to the house, tore up a piece of an old bed quilt, padded my splint and, after trimming it to proper shape with my knife, adjusted it to the limb and confined it there with three strips of bandage tied around and over the splint.

I did not see the man again for several days, but told him and his fellow workmen not to attempt to use the limb or to disturb the splint or bandages without my knowledge. Three or four days afterward I saw him and removed the splint and bandages. The ends of the bones were perfectly adjusted, and the cotton batting and improvised splint had moulded themselves to the shape of the limb. I reapplied the apparatus and told them to let the splints and bandages remain on for three weeks more, but that he might walk around the house with the aid of a crutch. At the end of the fourth week after the accident he discarded the splint and crutch and went to work again, using a cane to walk to and fro, as the leg was a little lame and stiff for about a week more. At the end of the fifth week there was no stiffness or lameness in the limb and the patient was perfectly sound.

II. R. T. (a blacksmith by occupation), on the 29th of June, 1892, while assisting in raising new bents on a barn, lost his balance, fell and fractured his leg near the ankle; from the fact of striking "terra firma" on his feet he fractured both bones. As he fell about twenty feet there was a compound fracture. I went to see him in the night but did not take any splints with me. Remembering my recent experience with the Hungarian, I did not feel in the least disturbed. I adjusted the fractured bones without chloroform, but using adhesive plaster, to retain fractured bones in apposition. Then I went into the woods near by and peeled a maple tree of proper size as in the previous case; trimmed off sharp corners of the bark splint with my knife; adjusted the splint to the limb with cotton batting; wound a muslin bandage over the splint with moderate tightness and strung up the limb by means of an iron pulley wheel screwed into the ceiling over his bed. By means of a cord attached to bandages around the limb and passed over the iron pulley, he could change the position of the limb "ad libitum." The well-padded maple bark splint proved a valuable mechanical and antiseptic appliance, as no change was ever made afterwards.

At the end of five weeks the splints were removed altogether. One week after the accident he was allowed to walk around the house with the aid of a crutch.

In neither of the cases mentioned here were any dry or moist applications used. From my own experience in such cases I have come to the conclusion that nature will do more toward the process of repair in case of fractured bones than art can do. All that the surgeon can do in such cases is to favor the effort of nature toward repair, by retaining the broken ends of bones in apposition.

SOCIETY REPORTS.

PHILADELPHIA COUNTY MEDICAL SOCETY

Meeting of March 8th, 1893.

DISCUSSION.

Dr. Wolff's paper on Hypodermatic Medication in Syphilis. (See page 525.)

Dr. J. William White: There are some points in the paper which attracted my attention, although I make mention of them chiefly to disagree. The reader stated in one of the opening paragraphs of his paper that in the principal medical centres of Europe little or no mercury was given by the mouth, the inference being that in this respect we are behind the times. As a matter of fact, if we look over the present treatment of syphilis in the hands of the most distinguished men of the profession who have made syphilis a specialty, we shall see that the reverse of this statement is true, and that comparatively little is given hypodermatically. In Germany some of the best men have pronounced against it as the method of choice, although there it prevailed to a great extent. In France even the veteran Fournier has pronounced against the routine use of the hypodermatic method. In Great Britian, Jonathan Hutchinson finds no reason in his experience for the use of this method. In this country, Taylor and Keys, of New York; Bryson, of St. Louis, and specialists in all parts of the country are reserving the employment of this method for rare cases. I would, therefore, take issue with the statement that in the principal medical centres of Europe this is the method of choice.

Another point which attracted my attention was the extraordinary quality that his patients seem to possess of preferring this method of treatment. This is absolutely the reverse of the experience of everybody else who has put himself on record. Fournier has called attention to the fact that while you may cause a rapid disappearance of the disease, you also cause a rapid disappearance of the patient. Every French syphilographer, who has recently written, has emphasized this point with the exception of two or three enthusiasts who are still carrying on experiments in this direction.

The remarks in regard to the effect of the treatment on open sores, would seem to indicate that Dr. Wolff began the treatment very early. If the rule, not to begin treatment until constitutional symptoms are manifested, were adopted, it might change his percentages. His statistics are open to the imputation that the cases were not all cases of syphilis, on account of the fact that there is a considerable proportion of "sore" which it is impossible to diagnose, unless constitutional symptoms are waited for.

Dr. Wolff gives twenty-five to thirty injections, and then stops the treatment. That seems the most defective feature in the method. It has been claimed that the disease is cured by thirty-five injections, each of a quarter of a grain of corrosive sublimate, the treatment lasting a little over a month, a little less than nine grains of mercury being given. If this is true, we have to suppose that there is some virtue about mercury given in this way which it does not possess when administered in other ways. The evidence is steadily accumulating that it does not produce permanent cures and that it is attended by a larger number of relapses than other methods, and the claim that thirty or forty injections of a soluble preparation of mercury or five or six of an insoluble preparation will produce a

cure of syphilis, is without foundation. Dr. Wolff spoke of the liability to relapse, and I can readily understand this if he stops at the end of the thirty-five injections. If he had only forty per cent. of relapses, he was fortunate.

As to the insoluble preparation, calomel, which Dr. Wolff places first, is first in order of time, as it was introduced in 1864, and revived seven or ten years ago by Smirnoff, a Russian physician, and has, until a few years ago, kept its place. It has, however, been supplanted by the yellow oxide, which is now used more than any other insoluble preparation. The objection to this plan is that it is only another way of giving a soluble salt. The insoluble salt is slowly converted into a soluble form, and, so far as I understand the matter, this becomes one of the most inaccurate methods of giving mercury. One of the claims put forward for this method is that it insures scientific accuracy. Anything more unscientific, as regards precision of dose, than to throw under the skin an emulsion of metallic mercury in lanolin or a quantity of calomel or yellow oxide, and allow it to remain there, subject to the vicissitudes of different degrees of inflammatory action attended with different degrees of absorption, would be hard to imagine.

As to the freedom from harmful consequences, as a matter of fact you have in some patients, as a direct result of this treatment, a violent stomatitis, dangerous salivation, entero-colitis with bloody stools, and where vaseline or fatty preparations are used, pulmonary embolism. There are on record fatal cases from these sources. Occasionally the metallic mercury remains under the skin inert for a time, and then suddenly becomes absorbed in large quantities, with the development of violent symptoms.

These objections are founded upon the observations of men who were advocates of the method, and who have had the frankness to record their unfavorable cases, and cannot be disputed. Autopsis in cases where the insoluble salts have been administered experimentally in other diseases, show that there is great variability in the rapidity of absorption.

The pain is severe and belongs to every mercurial salt administered in this way. Lang's statement in regard to the absence of pain and other symptoms after the administration of the gray oil, is contradicted by other observers. In the best hands there has been a certain per centage of abscesses, and although the introduction of antiseptic methods has reduced their number, they are occasionally inevitable. Far more frequent are the painful nodosities about the seat of the injection.

The conditions under which the method should be employed are extremely limited. I believe that it should be held in reserve for cases where other methods have failed. Given a patient whose gastro-intestinal tract reacts to mercury in such a way that the various preparations become irritants, and in whom the use of inunctions produces a violent dermatitis or mercurial erythema, and such a case would suggest a trial of the hypodermatic method. In grave emergencies, such as the serious eye-troubles of the secondary stage, it might even be regarded upon an equal basis with inunctions. There is no evidence to show that it is of greater value. If you want to produce rapid mercurialization, the administration of small doses of the protiodide, calomel or mercury and chalk, supplemented by the simultaneous inunction of mercurial ointment, will almost equal in rapidity the use of the soluble salts of mercury. I think that everyone will admit that in the presence of threatened grave complications, the hypodermatic method might be suggested. In old syphilis, mercury does not take the place of iodide of potassium. If you have a gummatous meningitis, or an infiltrating gumma of the brain, or a periostitis in the late stages of syphilis, or if you have any of the tertiary phenomena, while mercury hypodermatically might be useful it should be regarded only as a valuable adjuvant, but secondary to the use of the iodide of potassium.

I think that this subject is well worth discussing, and I am extremely glad that Dr. Wolff has read this paper. I came to hear it, and to put myself on record in relation to the whole question. I think that in what I have said I have spoken the views of the majority of syphilographers.

Dr. Richard A. Cleeman: I have used the hypodermatic method, and I think that Dr. White is a little severe. I have had several patients who prefer it very much to mercury by the mouth. I

have used more than thirty-five consecutive injections, and have given as much as one-third of a grain at a time, giving two injections of one-sixth of a grain each. I have never had abscess, but I have seen the painful nodosities, and once I had to stop because the parts were so painful that the patient was not willing to continue the treatment. After the nodosities disappeared, he came back and the treatment was resumed.

I have found, contrary to what has been said in the books, that a small quantity of corrosive sublimate will not remove the symptoms, particularly in cases of tuberculous skin disease in the form complicated with ulceration. You have to use many injections before any effect on the ulceration is produced. Finally, the ulcerations disappear as a rule. The great advantage of the use of injections is that you overcome the great tediousness of the ordinary treatment and the liability of the production of digestive disturbances. In a case I have in mind the man was in splendid general health while the hypodermatic method was used, but when mercury was used by the mouth he suffered from diarrhœa and troubles with stomach.

I have not used injections in the primary stage of syphilis, but in one case I have used them immediately on the appearance of the secondary symptoms. After the use of twelve injections the symptoms disappeared, but they reappeared in the course of a month in a rather unusual form—that of thickening of the nails. I am now using injections in this case. The general health is excellent, although he was much run down before; he is much pleased with the method. The pain, while it is sometimes severe, is not unbearable.

Dr. J. A. Cantrell: Contrary to the experience of Dr. White, I must say that the hypodermatic treatment of syphilis will cure in most of the cases. I have seen forty or fifty cases where the treatment has been continued up to thirty or thirty-five injections, and where the patients have not come back for the treatment of the disease. I have seen one of these cases seven years after the treatment, and there had been no return of the disease. I have, however, seen cases where the injections have been continued until as many as sixty or even one hundred and twenty had been given without benefit. Fournier has, I believe, within a month injected for macular syphiloderm. Sometimes the injections are not absorbed for a week or ten days, and often leave decided ulceration. In the cases in which I have seen the method employed, I think it would have been better to have used internal treatment, and if the cases did not do well the hypodermatic method might have been tried.

Dr. Edwin Rosenthal: I have used the hypodermatic injections of corrosive sublimate quite a number of times. I think that Dr. White is too severe in his denunciation of this method of treating syphilis. Practical experience has demonstrated its utility and the many advantages it has over other methods. The inuction method for instance, is the dirtiest that can be employed, and will drive away more patients than the hypodermatic method will. One of the points in favor of the latter method is that the patient has nothing to do with the treatment, but eat and drink whilst undergoing a cure. The injections are cleanly, devoid of all risk when judiciously made; at first they are made daily, and afterward every second or third day.

I have given the injections in the primary disease, in a case of chancre of the tongue, in which the lymphatic glands in the cervical region were very much enlarged, and where the internal administration of remedies could not be borne by the patient, and prompt treatment was indicated, with very good results. This patient is still under treatment, but there has been no appearance of an eruption.

Speaking of the large dosage given at a single injection and its good results, I wish to record another point, and that is: In infantile syphilis the dose of $\frac{1}{200}$ or $\frac{1}{100}$ grain of corrosive sublimate, as recommended by Dr. Jacobi (*Journal of Pediætrics*), is too small. I have seen a vast number of cases of infantile syphilis, and have lost quite a number, until I increased my dosage; and I never begin with less than $\frac{1}{60}$ grain of corrosive sublimate, and gradually increase the dose.

Dr. Charles Wirgman: A point to be borne in mind, both in private and hospital practice, is that as soon as the lesions disappear the patient ceases to return for treatment. No matter how eloquent you may be in regard to the neces-

sity of continuing treatment, they disappear. If it could be demonstrated by a more extensive use of this method that 35, 75, or even 175 injections will take the place of two or three years' treatment, that would be a great boon to humanity, and the question is worthy of serious consideration and further trial.

Dr. S. Solis-Cohen: The discussion points to the fact that it would be well to elicit further testimony as to the time when a syphilitic patient can be considered "cured." My own experience has been so largely with late lesions, occurring in cases that have been treated by many different methods, and in which quite a number of years has elapsed since the primary infection, that I am compelled to consider it at least premature, because symptoms may have disappeared for a time, to say that the treatment has cured the disease. The patient must, it seems to me, be kept under observation for a prolonged period, before we can record even a probable cure or recovery; and this is the fatal defect of all methods which limit themselves to a comparatively brief period during the time of early symptoms. My personal use of hypodermatic injections of mercury in syphilis has been limited to the employment of corrosive sublimate for rapid effect in early or late cases, so that I am unable to discuss the other methods, except from a theoretical standpoint; and therein I am entirely in accord with Dr. White. In the extreme cases of late lesions I sometimes meet, I resort preferably to inunction, associated with or followed quickly by internal use of potassium iodide in ascending doses; and acting upon a suggestion of Bartholow's, I sometimes conjoin with this the steam bath and the hypodermatic use of pilocarpine, to hasten elimination. It is dangerous to push the action of tissue-destructives unless we provide for rapid elimination. Hence the advantage, too, of giving large draughts of water or milk with potassium iodide.

Dr. Joseph Hearn: I have used the hypodermatic method in only one case where the stomach was irritable Under treatment of one-eighth of a grain doses the patient improved. I think that it is a method which should be held in reserve. There are cases which cannot bear the iodides. I have been taught that the iodides do not cure syphilis, but rather its consequences. Only mercury cures syphilis. If I am in a hurry, I use inunctions, but if there is no urgency I use internal treatment. I cannot say how many of my cases are cured. I believe that the disease can be put in abeyance so that the patient will live any length of time.

I would like to ask if the administration of mercury during the primary stage will mask the secondary symptoms so that you cannot recognize them.

Dr. James Mitchell: We have patients with syphilis where the disease appears to have taken a mild form. I have used all forms of treatment with the exception of the hypodermatic. My experiences of late years has been principally with the secondary and tertiary affections, particularly of the eye. I find that sometimes the patient deny anything like infection. I think that when we come to a study of the treatment of any disease we must take into consideration the fact that all diseases vary in their intensity in different individuals. And I think that this is the reason that we have different results with the same treatment, and why one method of treatment will fail while another will effect a cure.

Dr. John B. Deaver: My experience with the hypodermatic administration of mercury is comparatively limited. I have not used it sufficiently to say much in its favor. Of course, one of the objections is the decided pain which it causes. Painful indurations have been marked in some cases and have been some time in disappearing. I have, however, seen most excellent results obtained in ulcerative conditions of the pharynx and soft palate, where the internal administration of mercury did not suffice, largely, perhaps, because it excited irritation of the digestive tract, and where inunction had also failed.

One of the weakest arguments against the use of injections is that a cure is produced in so short a time. I believe that many of the cases of early relapse are due to the fact that the physician has been led to believe that he has cured the case. From my observation, I think that treatment should be prolonged for four years, or, at least, three years. I have had sufficient satisfaction with the ordinary treatment not to resort to the hypodermatic method, except in special cases.

Dr. White: In reply to the question

of Dr. Hearn, I would say that I believe that the prompt administration of mercury in primary syphilis will prevent the appearance of the secondary symptoms. I used to think to the contrary, but observation, experience and reading have led me to change my views.

I know of no test which can be applied to the individual which will demonstrate the presence or absence of active syphilis. I believe that 90 to 95 per cent. of the cases can be cured, but it is impossible to say at the beginning which of the cases will not be cured. As a matter of fact, syphilis is inclined to be a self-limited disease. Nothing but the experience of years will demonstrate the possible cure. The point has already been made in regard to relapses, and I think that figures are accumulating that are distinctly against the method, and will show that the proportion of relapses with the hypodermatic method is greater than under the classical methods which we have been using.

Dr. Drake: I have recently returned from Europe. For six months I was Kapsoi's assistant. In most of his cases he uses the hypodermatic method, the injection being made in the gluteal region once a week. Neuman, of Vienna, uses the salicylate of mercury hypodermatically. He also uses internal treatment in some cases. Lang, of Vienna, is at the present time experimenting with the gray oil. Lukasiewicz also uses injections of a five per cent. corrosive sublimate solution, a gramme every week.

In Berlin, the dermatologists and syphilographers, Joseph and Lassar, use hypodermatic injections in most of their cases. In some, they use inunction.

In Paris, Fournier was using hypodermatic injections at the time that I left. In some cases there, after the first injection the eruption entirely disappeared. Of course, it was a little painful, but it did not occasion the patients much trouble, and they gladly submitted to the treatment, and preferred the hypodermatic injections.

Dr. Wolff: As stated in my paper, I have made thousands of injections, and the patients whom I have taken off the hypodermatic method and given protiodide by the mouth, have asked to have the former method resumed. They did not seem to mind the pain very much.

In regard to the administration of the remedy before the diagnosis was established, I would state that the injections were not made until the muscular eruptions and other characteristic symptoms had manifested themselves. I never treat constitutionally for the primary sore alone.

As to the results, I stated that I have found no return of the symptoms in sixty per cent. of the cases. I do not know whether or not these gentlemen can tell syphilis when there are no symptoms. Syphilis is only present, in my opinion, when there are symptoms. The duration of the treatment has been, on an average, twenty-five injections, and I am not the only one who makes that statement. Many thousands of cases have been treated at the Charitè in Berlin.

Kaposi led the discussion on the therapeutics for syphilis, at the Congress für innere Medizin in Wiesbaden, 1887, and it was generally accepted for the principal methods of treatment and the relative permanency of their results, as follows: the inunction method, most permanent; the calomel injection treatment next, and the hypodermatic injection of corrosive sublimate, as third. It was stated elsewhere that the permanent results of the first were 75 per cent.; the second 70 per cent.; the latter, 65 per cent. My results have not been so good, although I injected larger doses and for a longer time.

In regard to the time of cure. This may be said to be obtained when there is no return of symptoms. There is no such thing as saying that syphilis will be extinct after two or after four years. I have seen it return after twenty years, in spite of treatment. There is only extinction when there is no return of symptoms. To limit it to any one time is almost out of the question, because the time of cure for syphilis cannot be predicted.

I have given my paper as the result of personal experience. If mistakes have been made, they have been the result of misinterpretation and lack of a sufficient number of cases, rather than a want of truthful statement.

Post-partum Uterine Pains.—(Treatment.)

[Rutherford—*Rev. Gen. de Cl. et de Ther.*]

℞ Quinine Sulphate.....1.0 gms. [15 grs.]
Opium.....0.5 gms. [7½ grs.]
Buckbean Extract.....q. s.

Divide into 15 pills. One every 2–3 hours.

THE MEDICO-CHIRURGICAL SOCIETY OF LOUISVILLE.

Stated Meeting February 17th, 1893.

Dr. F. C. Simpson, President, in the Chair.

ANEURISM OF CHEEK—OPERATION.

Dr. W. O. Roberts: This patient was before the society last summer and is a patient referred to me by Dr. Turner Anderson. You will doubtless remember the case as one of circumscribed aneurism resulting from injury to the face by a blow on the cheek with a stick. The aneurism had attained a considerable size and the tissues superficial to it were so very thin as to look as though about to burst. On September 8th I operated removing the tumor, and it was with great difficulty that I was able to dissect the skin from the sac of the aneurism. I finally succeeded, but failed however to get union by first intention throughout the whole surface. The girl left the infirmary in two weeks with the wound nearly healed. A week afterward, she noticed in eating that considerable watery fluid would run out of the wound. She came to see me and I found she had, as a result of the little sloughing that took place, a salivary fistula and this continued to discharge up to two or three weeks ago. The treatment was pressure until the wound grew very small, then it was dressed once or twice every day with collodion and iodoform—iodoform dissolved in collodion. Now the discharge has entirely ceased. I thought at one time that I would have to operate on the duct, but with the application of collodion and iodoform the wound entirely healed. There was never any salivary discharge until after suppuration occurred.

SUPPURATION OF PAROTID GLAND.

Dr. S. C. Dabney: I will report two cases of suppuration of the parotid gland, both of which I saw in consultation, the attending physicians thinking that disease of the ear existed. In the first case the first positive information that we had of suppuration of the parotid gland, was discharge of the abscess through its duct into the mouth. There was very considerable swelling, and it came on without any cause whatever that could be ascertained, neither mumps nor any acute disease having preceded. Diagnosis having been made of this trouble, I did not see that it was necessary for me to remain longer. The physician in charge made an incision letting out the pus, and the patient recovered without any further trouble.

No. 2. The second case was very much like the one just reported, except that the face was enormously swollen. She complained of no swelling in the throat, no pain, and no difficulty in swallowing. On looking into the mouth I discovered what appeared to be an immense quinzy, I thought this was very remarkable in view of the fact that there was no difficulty in swallowing and no well-marked pain referred to the throat. An opening was made in the abscess which was just above the left tonsil involving the pharynx and the soft palate. After the incision was made, a large quantity of pus was discharged. I did not see the patient again but was told by the physician in charge that a few days after opening the abscess in the throat, there was distinct evidence of pus on the outside of the face over the lower part of the parotid gland. An incision here gave exit to a large quantity of fetid pus. No communication could be traced from the external opening to that in the throat. The case is unusual, first, because of this external abscess accompanying a quinzy and secondly, because of the entire absence of the pain and difficulty of deglutition and of breathing which usually attend this disease.

DISCUSSION.

Dr. A. M. Vance: Was the gland proper involved or was it peri-adenitis ?

Dr. S. G. Dabney: It seems to me that it was most likely the gland itself from the situation of the swelling. All the symptoms of quinzy were absent so far as the throat was concerned, which seems to me the most remarkable feature of the case.

Dr. A. M. Vance: In connection with the trouble of the cheek, I would like to mention a case that I saw several

years ago, where a razor wound on a negro boy's face in healing evidently obstructed the duct. The external wound healed perfectly, and a large cyst occurred containing about a pint of fluid, the cyst probably destroying the outlet of the duct into the mouth. Dr. Godshaw referred the case to me and I endeavored to produce an opening into the mouth. I finally succeeded by using a slender canula such as is used in dropsy of the legs. I inserted one and let the boy wear it for a month, then removed it and the aperture closed up; I then inserted it again in the previously made opening. Whether it was near the normal one or not I cannot tell, but I finally succeeded in producing, by this small canula, a new duct—I believe it is possible to produce a new duct in this way. Of course I may have been fortunate enough to strike the natural one, simply re-opening it. The boy never had any more trouble after the second insertion.

Dr. W. O. Roberts: In the case reported by me, I thought at one time, as the wound was rather slow in healing, that I would have to carry the duct into the mouth, as is usually done in these cases, closing the external wound. But by the persistent use of collodion it has completely healed, as very frequently happens.

CANCER OF ŒSOPHAGUS; RUPTURE INTO THORACIC CAVITY; DEATH.

Dr. J. B. Marvin: This is a specimen I obtained from a case dying very suddenly at the Baptist Orphan's Home some weeks ago. The patient was a maiden lady about fifty years of age, brought here last summer to consult me, by Dr. Woolfolk, of Owensboro, with the statement that she had some trouble with the gullet, and that the home doctors were undecided whether it was spasmodic stricture, or whether there was an organic stricture, or whether there might be something else to account for the trouble. I left the city in August and turned the case over to Dr. Weidner, who treated her during my absence, the woman growing considerably better. She was one of those pale delicate women; never had been strong; suffered from severe attacks of asthma, etc. When I returned in October, she came back and I saw her at that time; she was able to eat fluids and some solids, and was in every way a great deal better. Dr. Weidner had concluded that it was purely a nervous stricture, spasmodic in character, and had washed the bowels out thoroughly, getting her in good condition, had given her massage, etc. She had quite an attack of trouble with her lungs at that time, and I differed from Dr. Weidner; he thought she had no pulmonary trouble, and I thought she had phthisis. I wrote to Dr. Woolfolk that I believed the result of treatment had proven the trouble was functional or spasmodic stricture of nervous origin. She went home, and after a time returned, looking not quite so well. She had more difficulty in swallowing; some days she could apparently swallow all right, then food would lodge and she would spit it up after a few hours. Bowels had been gotten in much better shape. She had a very unfavorable look, but I made no examination instructing her to resume the rubbing with whiskey and oil, and to take whiskey in small quantities internally. Two days afterward I was summoned very hurriedly, with the statement that she had not been so well the preceding days, had more cough and very free expectoration, and that day had gotten up and was moving about the house. She was eating her dinner when she remarked that she would go to her room on the next floor. About fifteen minutes afterwaad they found her dead on the floor. There had been an evacuation from the bowels and also from the mouth, of a very offensive muco-purulent looking material. I made the autopsy with Dr. Frank and exhibit here the specimens removed.

It was a cancer of the œsophagus which had ruptured into the thoracic cavity. I found in the thorax this little body, which is evidently a sugar coated pill; how long it had been there I do not know. The appearance of the lung indicates clearly that the trouble was not tubercular. Sections of the nodules examined under the microscope prove them to be cancerous. The involvement of the lung was probably secondary.

I certainly made a mistake in the diagnosis, both as to the condition of the gullet as well as that of the lung. It is remarkable the little amount of pain complained of by this patient, when the trouble was so extensive. There is no

history of trauma in the case. I wrote Dr. Woolfolk to give me more information but so far he has failed to do so. This case, I think, illustrates the necessity for more autopsies; without a *post-mortem* it could have been reported, as we see so often now, as dying from "*heart failure.*" Without an autopsy it would have always been a question in my mind as to exactly what she died from; possibly my conclusion would have been that she had a violent coughing spell and the thick, tough sputum had strangled her; however, the *post-mortem* proves that this was not the case.

We know the statements made by some authorities that if there is great emaciation and difficulty in swallowing in patients over fifty years, we should suspect carcinoma or stricture of some kind, but it is equally possible, it seems to me, to have in a neurotic person especially, a spasmodic stricture at any time of life.

Dr. A. M. Vance read a paper (see page 532) on

THE PRESENT STATUS OF CORROSIVE SUBLIMATE IN SURGERY.

DISCUSSION.

Dr. E. R. Palmer: My surgical work is confined almost entirely to minor surgery and yet it enables me to have quite large experience in antisepsis. Take for instance cases like this: A young man working in a tin manufacturing establishment, running machinery that is covered with oil, etc., gets his hand caught and a couple of his fingers are quickly nipped off by the machine; with a dirty, greasy cloth wrapped around it, he is rushed to the nearest doctor's office to have the wound dressed. Now here is a hand that could not be cleansed with sapolio—covered with oil, grit, etc., and it would seem an ideal basis for germ proliferation. The hand was cleansed as well as possible by washing for some minutes with $\frac{1}{2000}$ bichloride solution; the wounds were properly dressed, and there was absolute union of the parts without suppuration. Of course I recognize the value of hot water in cases where it is possible to make the parts absolutely clean and to maintain a condition of cleanliness, but how are we to meet such cases as cannot be cleansed by simply applying hot water; cases demanding a material that acts on oil, etc.; how are we to destroy the germ life that is in such material, in the treatment of such wounds?

I recognize in doing minor surgery that hot water and a solution of boric acid are very useful, and have considerable disinfecting powers, and I use them where it is practicable to make the part absolutely clean before operation. In cases where it is not possible to do this, like the one referred to above, where we have to rely upon something that has positive destructive powers for germs that we can not clean off, I know of nothing better than a sublimate solution.

Dr. D. T. Smith: I am as pleased as surprised to hear from Dr. Vance the views he advances to-night in his essay. Only about a year ago, I was sharply taken to task by him for disapproving of corrosive sublimate as a dressing for wounds. It never was my favorite; I gave it a trial when it first came into vogue, but in the minor surgery which mostly fell to my lot, I conceived that I found it distinctly inferior to the preparation I had been previously using, and so returned to my previous practice. The dressing I have been using from the beginning of my professional career consists of tannin, tincture of opium and claret wine, diluted according to the nature of the case with water. It is practically Burnstead's modification of the French aromatic wine. It is a perfect dressing if the wound be kept constantly moist with it. I have urgently insisted for years, that a substance like corrosive sublimate that forms with the albuminoids a most refractory combination, could not be the proper thing to put between two wounded surfaces with the view of promoting healing. The dressing of laudanum and tannin does not corrode the tissue further than to render them an unsuitable field for bacterial growth, and it does not prevent the surfaces from growing together more perhaps than will the serum itself.

If a tough membrane is formed between wounded surfaces that are expected to unite, it only adds to the task of the leucocytes by whom this substance must be removed; it is these leucocytes after all that afford the protection, much of which has been credited to corrosive sublimate.

And just here, if I may be pardoned the mention, I will venture to claim that I

was one of the first in the field to call attention to this important fact from which Metchnikoff has gained so much honor.

In October, 1884, I read before the Orleans Parish Medical Society an essay entitled "The Role of the Leucocyte," which embraced every leading feature of the doctrine of Metchnikoff relative to the white blood cell. I presented it to the *New Orleans Med. Jour.* and the editor, Dr. Matas, accepted it for a leading article in the next issue. In the meantime a lot of young men got charge of the journal, about eight I believe, and they voted that my article was quite too romantic and fanciful for a scientific publication and returned it to me. I subsequently had it published in a small trade journal, *The Southern Pharmacist.*

Metchnikoff had published earlier than this by one year.

In 1883, he published in two scientific journals in Vienna, but in 1884, he first published in a medical journal, *Virchow's Archives.* I do not think any publication of the doctrine had been made in this country until after I had read my paper, certainly not to my knowledge, so while I cannot claim to have been the original discoverer of this important fact in medicine, I do claim to have discovered it independently.

Dr. O. W. Roberts: I agree with Dr. Palmer that we do not need bichloride solution in operative wounds, but in the class of cases which he has mentioned—railroad injuries, injuries by machinery, etc., where the injured parts are necessarily in a dirty condition, I always feel safer in the use of bichloride solution, 1 to 5000; but I at the same time take the precaution after using the solution, to thoroughly wash the wound with sterilized water so as to get rid of any of the bichloride that may have been left in the wound.

I believe in these cases very frequently, the mercury that is left in the wound not only produces a local effect but also produces a constitutional—the toxic effect of the drug. I had one or two cases some years ago, where the toxic effects of the drug were very manifest, producing distressing gastric and intestinal symptoms which were very difficult to control; in one case I also had salivation. Since then I have never used bichloride in recent wounds without afterward washing it out thoroughly with hot water. In these cases I very frequently get union of the whole surface of the wound—primary union without suppuration. In addition to washing out the wound with hot water after using bichloride, I use over the wound a piece of rubber tissue for protecting the raw surface from the bichloride used in the dressings—I use bichloride and iodoform gauze.

Dr. W. C. Dugan: I will say that my faith is rather weakening in bichloride; I have seen a number of cases which I am sure were aggravated, and union prevented by its use. I remember a case similar to the one referred to by Dr. Palmer, which I saw the 24th of last December. A boy had his finger caught in a machine of some sort and came to my office with his finger crushed and covered with oil and black grease from the machinery; I simply removed it with scissors, shaped the flap and brought it together, washing with hot water, good soap and brush; it healed under one dressing without any bichloride—without any antiseptic whatever. I recently operated upon a case at the Sts. Mary and Elizabeth Hospital, using bichloride which caused excessive necrosis of the wound without any bacteria—simply chemical necrosis—causing a great deal of disturbance in the union. I can recall a number of cases of the kind. I used to use bichloride solution and felt at times that it did a great deal of good. On the whole I am inclined to think that this solution has had its day.

Dr. W. L. Rodman: This is a subject much to my liking—or better disliking. In truth it is a "theme upon which I will fight until my eyelids will no longer wag." While preparing my thesis on pneumonia fourteen years ago, I read Juergenson's article. I remember that he spoke of Niemeyer as the "Quinine hater." I have been known for many years by those with whom I do most of my surgical work, as a bichloride hater. It has served myself and my patients badly. The greatest objection to it is that it causes in many persons, a dermatitis or mercurial eczema, which is no slight thing, as any one who possesses the idiosyncrasy will testify. After immersing my hands in a solution as weak as 1 to 5000, they begin, in four or five hours, to redden and then swell. The itching is simply intolerable and beyond the power of language to ade-

quately describe. The itching continues for several days, being always worse at night, and when desquamation begins I lose my skin as does a snake.

Now if my own was a solitary experience, I would have little ground to seriously advise the discontinuence of bichloride in surgical work; suffering from it as I have done so many times, my observation has been particularly directed to the effect of the drug upon others skins. I could name scores of surgeons, nurses and patients who have been no less unfortunate than myself. Then again every one admits that any cutting instrument coming in contact with the weakest solution of bichloride, will be ruined thereby. With such objections to its use, it has no legitimate place in surgery unless it can be shown to possess advantages over all other agents. I deny that this can be done. In fresh, surgically clean wounds, it is now admitted by a majority of surgeons, that *all chemical agents* had better be dispensed with. We are running to *asepsis* rather than to *antisepsis*. Chemical germicides are only for use in septic wounds. Who uses bichloride at the present day in the abdomen or other large cavity? Formerly every one did. Gauze was formerly immersed in a bath of 1 to 500. Now we rarely see it stronger than 1 to 2000, and generally 1 to 5000. I speak of these things to show that it has had its day. I have seen an abdomen so raw as to look like a tomato as the result of applying gauze (moist) 1 to 2000. You rarely see moist bichloride gauze now at all, because of its irritating properties. Every attempt has been made to overcome the disagreeable effects of bichloride in surgical work and hitherto without success. I have been fighting it here in Louisville for many years single handed; I have borne the brunt of battle in many of our society discussions, and am glad now to know that in the future I am to have such allies as Dr. Vance and Dr. Dugan—they are good fighters and we say to the opposition, "Let slip the dogs of war."

Dr. Wm. Bailey: I only want to say that I could very appropriately express myself in the language that has immortalized one man: "Where am I at?"

Looking over this whole question there have been some wonderful changes. We doctors have been envying surgeons during the last ten or fifteen years, by virtue of the advancement in the art of rendering inactive the various germs by the various methods, solutions, etc., now it seems that they are about to dispense with one of them. I remember very well when carbolic acid was first introduced as an antiseptic we thought it was a wonderful thing; then after a while corrosive sublimate was introduced, which was claimed to be far superior to anything else as it would destroy the germs. Now it seems that neither of these agents has any power to absolutely destroy the micro-organisms.

In cases such as spoken of by Dr. Palmer, it is a question in my mind whether the oil itself is not antiseptic, and whether recovery would be as prompt without the use of bichloride, so long as this will not kill the germs. For a long time I have felt very well satisfied in going to a case of labor, by having my hands perfectly clean, using an antiseptic solution for bathing, that everything was entirely safe and I could make an examination with a great deal of confidence. Now it appears that the so-called antiseptic solutions are of no benefit—"Where am I at?"—Have you anything that is of benefit?

Dr. C. Skinner: I discarded bichloride solution about a year ago and have been watching the results.

In abdominal work I employed a silk ligature and sutures which had been soaked in a solution of bichloride—making the "ideal suture." The bichloride acting upon the tissues to form the albuminate of mercury which was supposed to be germ proof. This suture I discarded for the silk worm gut and had three consecutive cases of stitch abscesses. The cause I traced to lack of care on the part of nurses in sterilizing instruments and material, and now since I attend to all this work myself I see no pus. It is not safe to intrust this all important work of sterilization to nurses, for they do not as yet realize its importance. I think we can get just as good results from the use of clean boiled water in surgical work, if our instruments and everything else used in the operation are properly sterilized, as by the use of any antiseptic solution yet introduced.

Dr. A. M. Vance: I have not much to say in closing. I am very glad the

subject has been so thoroughly discussed. I do not think cases of the character Dr. Palmer mentions prove anything for bichloride. Of course, the wound should be cleansed of cinders, grease, etc., but I fail to see how corrosive sublimate could possibly be of benefit.

I feel sure that Dr. Roberts will recall a number of cases of amputation that have suppurated without his being able to account for it, except for the fact that he used solution of bichloride of mercury 1:2000, which, undoubtedly, produced necrosis. I think this solution is especially harmful in fresh wounds, as it not only will not absolutely destroy microorganisms, but it prevents healing because of the necrosis it produces.

Regarding Dr. Bailey's remarks, the history of medicine, as well as surgery, is constantly undergoing change. He is probably now using medicines that he did not dream of five years ago, and discarding remedies that he formerly used constantly.

I fully agree with what Dr. Rodman has said, that corrosive sublimate has had its day, and that, in a few years more, it will be regarded in about the same light in surgical practice as carbolic acid is to-day.

The Treatment of Acute Intestinal Obstruction.*

L. Rehn, (*Archiv. für Klin. Chir.* bd. xliii, hft 3. 4,) speaking from personal experience, advises early surgical interference in cases of acute intestinal obstruction, and presents on the whole very good results. He gives a short history of thirteen cases of acute intestinal obstruction with ten recoveries through operative interference, most of which necessitated considerable manipulation.

In some cases the diagnosis regarding location was not clear, while in others he was able to locate it definitely. Most of the cases were the result of strangulation or torsion. One was due to an acute angle produced by mechanical pressure, resulting from suppurating masses; this was at once relieved by simply removing the pus pockets. In another case the occlusion was due to a displacement of the flexura sigmoidea through pressure induced by an abdominal pregnancy.

As usual the conditions found were rarely alike in two cases. The diagnosis was in most cases easy, eight times fecal vomiting was present. Rehn places great value upon auscultation of the abdomen in order to aid in localizing the peristalsis in cases where this can not be seen.

The author wishes to make a distinct classification between those cases in which obstruction arises outside of the intestinal wall, and those in which the lumen of the bowel is obstructed from the interior. This latter can only be considered secondarily in acute strangulation, since the fate of the tried bowel may be already sealed before any marked symptoms of obstruction of its lumen present themselves, hence strangulation of the bowel, in the author's opinion, can be more certainly diagnosed if the attack is sudden, grave; accompanied by severe pain and followed soon by collapse. Such cases must be treated on a similar plane as strangulated hernia, namely, prompt surgical interference.

The author believes that such strangulations are more dangerous to the vitality of the bowel than cases of strangulated hernia. The complication with suppurating processes, such as typhlitis, require that the attention be directed to a careful removal of all products of suppuration. In cases of chronic increasing obstruction the author gives no precise regulations regarding diagnosis or treatment.

If operation becomes necessary he prefers enterostomie, and only in those cases where a definite knowledge of the location and nature of the obstruction is present. An exploratory incision may often be necessary to establish this.

*Translated for the MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

Black Eye.

There is nothing to compare with a tincture or a strong infusion of capsicum annum, mixed with an equal bulk of mucilage or gum arabic, and with the addition of a few drops of glycerine. This should be painted all over the bruised surface with a camel's-hair pencil, and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, the treatment will invariably prevent the blackening of the bruised tissue. The same remedy has no equal in rheumatic, sore or stiff neck.—*Medical Times.*

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SATURDAY, APRIL 8TH, 1893.

EDITORIAL.

PROFESSIONAL COURTESY.

Anent professional ethics, whether the code shall or shall not be revised, THE REPORTER calls attention to a fundamental element that appears to have escaped notice. The factor is of such importance that if its faults remain uncorrected every attempt to revise or reform a code of rules will prove futile; while if the faults are eliminated there will be no necessity for the existence of a code. This important factor is the *personal equation*, and the more important defects are summed up in the term *selfishness*. Correction of the defects of this fundamental factor unravels the entire tangle of the "Code of Ethics."

The solution is so simple and practicable that in all probability it will receive but scant consideration. Its simplicity may prove an objection in some quarters for it would bear equally and alike upon every individual in the profession, and might subject some enthusiasts to the disagreeable suspicion that their loud talking was prompted by some motive other than anxiety for the public weal. Its practicability might not inspire support from all quarters, but the profession at large would regard it with satisfaction, in that each individual would be charged with the oversight of but one man, would be relieved of the necessity of searching out and contemplating the shortcomings of his fellows and would be enabled to devote the considerable time thus economized to scouring possible rust specks from his own escutcheon.

The key to the whole problem—and there is but one key—is the good old-fashioned Golden Rule.

This rule is as applicable to professional intercourse in medicine as it is to any other relation in life.

It would be easily applied and readily observed were medicine practiced in a more disinterested spirit. Were the contribution to scientific knowledge the ulterior motive and the relief of suffering the immediate object of each practitioner, there would be no room for envy, no mo-

tive for jealousy, no opportunity for backbiting and no excuse for disparagement. Science requires the keenest scrutiny, the most severe tests and the fullest and freest discussion of every offered effort at advancement, but it also requires the total elimination of the personal equation. Unfortunately few discussions of medical innovations are entirely scientific in this latter respect.

A disciple once told the Master that an unauthorized person, over in a neighboring locality, was casting out devils in his name, and that he had been forbidden to continue the practice. The Great Physician responded—"Forbid him not, for he that is not against us is for us." He recognized only the fact that one engaged in the god-like office of ministering to the afflicted was neither more or less than a brother.

But in modern times devils must be cast out in the good old orthodox way (orthodoxy is *our* doxy, all else is heterodoxy), or we may not recognize the man who does it. Having learned that the stones we have been casting at our heterodox brethren have served only to build higher the pedestal on which they pose before the world, we begin to look around, and if we notice any one of our own sacred caste doing things in a brilliant or original manner, "we rise up and smite him with misrepresentation and calumny." Yea, verily we call him a prevaricator. We prove not only that he does not do what he claims, but we bring witnesses who testify that he does it in a very unorthodox way. That his procedeures are not justifiable, we have documentary evidence in the shape of an unbroken line of authorities beginning before the birth of authentic history and continuing even to this day. If this gentle expostulation does not lead our brother from the errors of his way, we formulate an ultimatum that certain conditions are incurable; that, for reasons we proceed to name, certain methods are "brutal and inhuman and not excusable on any reasonable ground." This ultimatum we tie on the tail of our sacred bull, Infallibility, and turn it loose to edify the public.

When cowardly insinuations that "a prominent professional man" is using just such methods, and for the very reasons that we have announced to be false and dangerous, reach our surprised ears, we shake the head and whisper—"Is it possible!" Well I am not surprised after all. He is afflicted with a swelled head. In fact I have long regarded him as a very dangerous man. Tomtit says he stole some cases from Blaggard. He says he is willing to swear to it, for Mendax told him that Jacquass heard it discussed at Allgab's table. Now don't you think some measures should be taken to end this disgraceful state of affairs? If we let this thing go unchecked there is no telling who will be exposed next. Confound the fellow! He knows too much, and we must muzzle him. Well, so long! If there is anything I despise it is a mischief-maker. Scavenge is on his rounds now and when he sees you doubtless he will give information of personal interest to you."

If our erstwhile companion remains unconvinced we hail him before the Council. This conclave of grave and reverend seigneurs we persuade to sit on him, and, in order to make their influence ponderable, we call to their assistance some modern Samson with a reputation of slaying thousands with the jaw-bone of an ass—even his own.

If all these things move not the offender we resort again to painstaking and industrious lying.

This hypothetical process is duplicated in every community that contains a live, progressive and successful man. What is true of reformers in all other lines obtains in the medical profession likewise, and is due largely to the variable

personal equation. This unfortunate condition is not true, perhaps, of the majority of individual members, but it does mark the profession collectively. This may seem paradoxical, but it is true, nevertheless, as history abundantly shows. For instances, concealing the skeletons in our own closets, we mention but one or two remote cases.

When McDowell published an account of his first abdominal section, the editor of a leading English journal denounced him as a liar—then apologized for the insult.

No member of the English profession of to-day likes to hear the name of Baker-Brown. The story of the jealousy and meanness that drove Baker-Brown out of the London Obstetrical Society, ruined him financially and eventually landed him in a mad house, is too recent to moderate the shame of the profession.

But similar efforts to bury under a load of contumely the men whose genius builds the monuments of medical progress in the closing decade of the Nineteenth century, are being made to-day, both at home and abroad.

In its ultimate analysis the inspiration is the defect of the personal equation—selfishness. It is that which compels the existence of a code; and so long as it remains sovereign in influence no code can modify it. When eliminated no code will be necessary.

THE MEDICAL EXAMINER'S BILL FOR PENNSYLVANIA.

The bill establishing a State Board of Medical Examiners has passed the House. The present bill may not be perfect, but it is a safe one upon which to base future legislation.

The bill provides for the appointment by the Governor of three boards for the examination of all applicants for license to practice medicine or surgery. Each board to consist of seven members whose term of office shall be three years. One will represent the Medical Society of Pennsylvania, one the Homœopathic Medical Society of Pennsylvania, and the third the Eclectic Medical Society of Pennsylvania. The appointments are to be made from the full lists of members of these societies.

The duty of these boards ends with the examination of applicants and the recommendation to the Medical Council of Pennsylvania, which is established by the same bill.

The Council will consist of the Lieutenant-Governor, the Attorney General, the Secretary of Internal Affairs, the Superintendent of Public Instruction, the President of the State Board of Health and the Presidents of the three State Boards of Medical Examiners. It will be the duty of the Council to supervise the examinations conducted by the examining boards, and to issue licenses to those who have successfully passed the requisite examination or have been recommended for license by one of the Boards.

C. Chlorodyne.

This is the name given at the Walajabad Mission Dispensary for a chlorodyne much used there in cholera cases (*Calcutta Medical Reporter.*) The formula is:

℞

Spt. menthæ. pip.	ʒij.
" camph.	ʒij.
" chloroform.	ʒij.
Tinct. capsici	ʒij.
" zingib.	ʒij.
" catechu	ʒvj.
" digitalis	ʒj.
Acid hydrocyanic. dil	ʒij.
Glycerini	ʒiij.
Spt. vini. rect.	ij. M.

mxx. in ʒj. of water every fifteen minutes, until vomiting and purging stop.

When the cases come, Dr. W. Walker states that treatment is begun at once with 20 drops of the chlorodyne, in a teaspoonful of water, and if necessary the same amount is given every fifteen minutes; but it is seldom found that more than one or two doses are required. At the same time the usual specific treatment is carried out.

TRANSLATIONS.

RUPTURE OF THE BILIARY PASSAGES IN CONTUSIONS OF THE ABDOMEN.†

In *Le Bull. Med.*, Feb. 5, 1893, Routier, of Paris, comments upon the progress made of late years in the surgery of the abdomen; that through this advance we are now able to treat successfully lesions that otherwise would only be discovered on the autopsy table, such as rupture of the intestines. He reports a case of traumatic lesion of the liver occurring in a little boy of thirteen years, who was seen in his hospital service at Cochin, suffering with all the signs of an acute peritonitis—distension of the abdomen, extreme pain, shriveled features, pulse small and thready, tongue dry, repeated vomiting, rather bilious. These symptoms had suddenly developed after a kick in the right hypochondrium which had provoked an immediate syncope. The bowels had been unmoved since the traumatism, the urine was scanty and red; fortunately the child passed some flatus. This fact itself assured the integrity of the intestines and rendered the course to be pursued very simple. Two large bladders full of ice were applied to the stomach; the diet was absolute, and a small injection of morphine was made. The amelioration was rapid, and so decidedly so that on the sixth day, in spite of advice to the contrary, the child was removed to its home. This was a bad move for, two weeks later, his mother brought him back in a pitiable condition. Now the child was weak and emaciated, with alternating diarrhœa and constipation; his peritonitis was rather sub-acute although with fever, but the local signs especially had much changed. When on his first sojourn in the hospital his abdomen would scarcely tolerate touching, so great was his pain, but now palpation, although still painful, was nevertheless possible. It was also easy to recognize fluctuations throughout the whole extent of the right side of the abdomen. The tympany appeared general at the first examination, but now while the whole left side remained tympanitic, the entire right side of the belly was flat. The mother said that when in his seventh year he had been attacked with symptoms analogous to those that had followed the kick, resulting from a fall upon the stomach, but not so grave, consisting mainly in alternating periods of diarrhœa and constipation. This history threw Routier off the track and caused him to modify his diagnosis. He thought now that the recent traumatism had lighted up a dormant tubercular peritonitis, and with the idea of treating a peritonitis of this nature he proposed to the mother the performance of laparotomy. An incision was made in the median line below the umbilicus, and he immediately came down upon an oval mass of agglutinated intestines, adherent to the anterior walls, so that considerable care was required to prevent tearing them. As soon as he had opened the peritoneum there escaped about a liter and a half of a greenish-brown liquid resembling bile in every particular. He again modified his diagnosis to that of rupture of the biliary passages, especially as the false membranes did not have any of the tuberculous appearances and as there were no traces of granulations upon the intestines. These membranes were very thick in the middle line and especially towards the liver, the inferior surface of which they completely masked. There was thus formed a sort of antero-posterior wall by the mesentery, the agglutinated coils of intestines and the omentum which acted as a barrier to the liquid. However, as this wall approached the pelvis it became less complete, the false membranes disappearing and the intestinal coils preserving their normal lustre, although tinged green by the bile. It was thus that the fluid was able to penetrate into the pelvis and to rise again, although in small quantity, on the left side of the mesentery. The thickened masses of exudate which concealed the lower surface of the liver, and which were believed to have a curative action, were not removed; the fluid was allowed to escape and the abdomen was closed. The after course was very simple.

†Translated for THE MEDICAL AND SURGICAL REPORTER, by W. A. N. Dorland, M. D.

Eight days after the operation there was no reproduction of the effusion, and some days later the child went out cured. There was no doubt as to the nature of the lesion; the traumatism had caused a rupture of the biliary passages and the effusion of the bile had produced the partial peritonitis which the operation had caused.

These cases are quite rare, but curious to note they are all the same, so that the observations that Routier has been able to collect appear all based the one upon the other. From these observations and from the results of experimental pathology he has been able to trace a sort of schema of this variety of abdominal traumatism. In nearly every case there is a history of abdominal contusion from a force whose application was made upon a small surface —in the above case, the end of a boot— the tip of a carriage pole, as in the case of Arbuthnot Lane; the end of the beam of a fire engine, as in Drysdale's case, or the end of a wagon shaft, as in the case cited by Uhde. However, the cause is very often obscure. In the observations of Fryer, of Thompson, and of Landeser there is simply made mention of a violent shock. To explain the rupture of the bladder or bile passages, Routier willingly accepts the following hypothesis: The contusing body acting by a sharp extremity and striking the patient from below upwards in the subhepatic region takes the abdominal wall by surprise, immediately effacing the lumen of the ductus choledochus or of the gall-bladder, by pressing against the lower surface of the liver retained in the concavity of the diaphragm; the bile imprisoned in the bladder or canals is not able to escape; the pressure increases and the liquid causes the walls to give way.

He gives as the result of his researches and practical experiences the following conclusion: When a surgeon is brought face to face with an abdominal contusion, especially in the hepatic region, and there is reason to believe that there does not exist an intestinal rupture, it is better to bear in mind the possibility of rupture of the bile passages. The patient then should be placed in a state of absolute repose with restricted diet, ice should be applied over the abdomen, opium administered internally, and palpation observed to gauge the moment when the general symptoms become quiet. Then all that must be treated is the abdominal effusion, and experience has proven that nothing is comparable to a simple laparotomy. The result is always satisfactory.

A Case of Incipient Ischiatic Hernia.*

The patient, a woman, aged 41, had been suffering for nine days with constipation and fecal vomiting; was admitted into the surgical department of v. Hacker.

A fracture of the left thigh was at first regarded as the cause of the symptoms of strangulation present. Herniotomy, however, revealed no such strangulation. Laparotomy was resorted to on the same day by v. Hacker, who found that near the end of the ileum, about two finger breadths (spannen) of the bowel had passed through a recess of the parietal peritoneum and become strangulated. This recess was found in the left portion of the small pelvis in the region of the incisura ischiatica.

After releasing the strangulated portion of the bowel, and closing the abdomen, the symptoms of incarceration were at once relieved. The patient, however, died on the sixth day of lobular pneumonia of the right lung.

The author was unable to find any cases in literature quite analogous to his, since the anatomical descriptions of such hernia usually place the sac in another position to the obturator and hypogastric arteries than in his case.

Langer's explanation, however, is that all hernia of this nature, which passed through the opening between the incisura ischiatica major and the upper margins of the pyriform muscle, originates, more or less, from internal hernia, and for that reason regards his case as one in its early stages. Until the present time eleven cases have been published under this head, the author's being the first in which the condition was relieved by operative means.—(A. Langer, *Centralb. für Chir.*, No. 9–'93.)

Irritable Bladder with Acid Urine.

℞ Spts. ammon. arom. }
Æther nit. } .....aa dr. ij.
Tr. hyoscyami }
Aq. camph., qs.....ad. oz. vi.

M. Sig. One oz. three times a day.

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*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

CURRENT LITERATURE REVIEWED.

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES

For April contains

A Contribution to Cerebral Surgery,

By Drs. Charles McBurney and M. Allen Starr. The questions of the diagnosis, localization and operation for the removal of tumors of the brain are discussed and three cases of brain tumor reported in which operation was performed.

CASE I. Sarcoma of the left frontal lobe. Successful removal, subsequent death. The case is reported in full with cuts showing the site and appearance of the tumor.

CASE II. Fibro-sarcoma of the cerebellum and pons varolii; staggering away from the side of the tumor; operation; death. The autopsy showed that it would have been impossible to have removed the tumor owing to its situation.

CASE III. Glioma of the cerebellum; characteristic staggering; operation; death. The tumor was not removed, as it occupied the vermiform lobe of the cerebellum and was not discovered during life.

Operations on the brain more frequently than in any other part of the body, are exploratory, and, in spite of the constantly increasing knowledge of the subject, the operator will probably always be in doubt as to the possibility of removal of the tumor until it is reached. While exploratory operations in other parts of the body are often simple and devoid of risk, it is not so in the brain, where unexpected difficulties, even serious accidents are liable to occur at any stage of the operation. The chief danger is from hemorrhage, which begins from the moment the scalp is cut and varies greatly with different cases. The incisions in the scalp should be free and horse shoe-shaped, the author's preferring the method suggested by Wagner, which consists in cutting through the skull with a chisel in the line of the scalp incision, the scalp flap not having been turned back. This bone flap with scalp flap still attached is then pried up and turned back, thus exposing as large an area of dura mater as the original incision outlined. To open the dura the authors prefer to cut directly down upon it with the knife at a point an eighth or a quarter of an inch away from the bony margin. When an opening is made, small blunt scissors may be introduced and the whole flap of dura, similar in shape to the bone flap, turned back. Picking up the dura mater with a tenaculum is more likely to be accompanied by a wound of a vessel in the pia mater. As a rule if removal of a tumor is begun it must be completed. Hemorrhage from a wounded vessel in the pia mater is best controlled by the cautery if the vessel is small; larger ones may be compressed by a sponge in the hands of an assistant and the cautery or ligature applied later if necessary. A wound in a sinus had best be packed with gauze, if large. If small enough it may be closed by one or two pairs of pressure forceps which may be left in position for two or three days. It is is useless to try to ligature or suture a wounded sinus. Free hemorrhage from the cavity left after removal of the tumor should be met with gauze packing. In operating on tumors of the cerebellum the danger of wounding the sinuses is too great to allow of the application of the method of entering the skull mentioned above. Here it is better to sacrifice the bone and remove a button with the trephine, enlarging the opening if necessary.

The diagnosis of cerebellar disease is asye; headache, vomiting, vertigo, blindness and staggering being the symptoms almost uniformly found. It is yet almost impossible to locate accurately the disease within the cerebellum. The symptoms of greatest importance in the location of cerebellar disease appear to be those arising from the involvement of the cranial nerves upon the base. The disease commonly lies upon the side upon which those nerves are affected.

The two cases reported bring the number of operations for cerebellar disease up to thirteen. In six cases the tumor was not found at the operation and the patient died. In one case the tumor was not found but the patient was alive at the time of the report. In two cases the tumor was removed, but the patient died. In two cases it was found but could not be removed and the patient died. In one case it was found, not removed, but the patient lived. In but one case was the tumor successfully removed. The percentage of deaths after cerebellar operations thus far has been 77 per cent., while that after cerebral operations has been 51 per cent. If the results of the cerebral operations be combined with those of the cerebellar, we find that the total number of patients operated on for intra-cranial tumors has been eighty-seven, and that of these, 40, or 46 per cent., have proved successful, the patients recovering.

This issue contains two papers on

Symphysiotomy.

Dr. Henry J. Garrigues continues the report of a successful case begun in the March number. His conclusions are as follows: The distance between the ends of the bones after symphysiotomy can readily be increased to two and three-fourths inches without injury to the sacro-iliac joints. If the separation is carried to three and one-eighth to four inches the joints, one or both, crack and open. The indications and limits of the operations are discussed and for flat pelves, found to lie between two and three-fourths and three and one-half inches. In the generally contracted pelvis the author places the upper limit at four inches, C. V. In performing the operation the operator sits on a chair between the legs of the patient, which may hang down over the end of the table or

lie outstretched during the first incision, but during the incision of the symphysis should be held bent in hip and knee-joint, moderately separated with the feet high. The transverse incision into the recti muscles advocated by Morisani, the author thinks is not necessary and weakens the abdominal wall. After cutting down on the symphysis, the finger is introduced behind the bone and Galbiati's falcetta introduced, the cut being made from behind forwards and from below upwards. In this way the bladder is avoided. The whole symphysis, inclusive of the subpubic ligament, should be cut. The urethra is protected against injury by being held over to the right side by means of a long metal catheter. The bladder and vagina are guarded by the finger held behind the symphysis or by passing a director. Assistants should press moderately on the trochanters, and in this way avoid too great strain on the articulations. The soft parts should be held apart during extraction. As to the furthering of labor after the symphysis has been severed, the author thinks the woman should be delivered at once and not left to nature as Morisani advises. The common rules of delivery hold good—forceps for the engaged head, turning for a head movable above the brim. If the placenta does not come away within fifteen minutes after delivery of the child it is better to loosen it artificially before closing the wound. After delivery of the placenta the bones are brought together by pressing on the trochanters,and deep sutures introduced through the skin, adipose and fibrous tissue down to the bone. Great care should be taken to see that the bladder and vagina do not get in between the ends of the bones. Broad bands of rubber adhesive plaster surround the pelvis and the patient should lie with outstretched legs as this position tends to bring the end of the bones together. The author thinks it safe to let the patient get up at the end of three weeks. In relation to other operations, the operation of craniotomy on the living child, which has been so universally condemned, will vanish from the list. Induction of premature labor will be much restricted. The improved Cæsarean section holds its own when the conjugate is below 2¾ inches. The operation of symphysiotomy should be performed as soon as labor is sufficiently advanced, as delay only adds to the dangers. The operation should only be undertaken by the skilled operator.

[The whole paper is a clear dispassionate statement of the entire subject of symphysiotomy and is a valuable contribution to our knowledge of the operation.—Ed.]

The other paper on symphysiotomy is by Dr. William T. Lusk and is the report of a case in which the operation was performed on a primi para who had been in labor for twenty-two hours. There was a brow presentation and version and extraction by the forceps had been tried by the attending physician without result. The child lived seventeen hours; the mother died on the afternoon of the day following the operation. The reporter does not think the operation responsible for the fatal result.

Dr. George M. Edebohls concludes his paper on "Movable Kidney." The author describes the operation of nephrorrhaphy as he is accustomed to perform it, and states that the mortality is practically *nil*. For buried sutures to fasten the kidney to muscle and aponeurosis, he uses silkworm gut exclusively. The paper included the detailed report of the twelve cases in which he has performed the operation.

Dr. D. D. Stewart contributes a paper on "The Prevention and Treatment of Cholera by the Naphthols." The paper includes the bacteriological report by Dr. George M. Sternberg on the subject.

Dr. L. Duncan Bulkley discusses the "Internal Treatment of Lupus Erythematosus with Phosphorus" giving the formula of the solution used by him. The paper included the report of cases cured or much benefited by the treatment.

Dr. Leo Newmark presents "A Contribution to the Study of the Family Form of Spastic Paraplegia," reporting the cases in two families in which the disease occurred. The paper is illustrated with the photographs of three of the patients.

THE VIRGINIA MEDICAL MONTHLY

for March contains an article by Dr. William A. Thom, Jr., on "The Quarantine of the Future," in which the glaring defects of quarantine as now constituted are reviewed and suggestions made for the betterment of the service. He suggests the appointment of a commission of five, by the Federal government, who shall have supervision of quarantine matters and be assisted by a corps of inspectors. The plan also includes the establishment of disinfecting plants at various points and regular reports from consuls as to the sanitary condition of the country in which they are stationed.

Dr. R. L. Payne presents "Some Practical Observations on Treatment of Typhoid Fever." In speaking of hemorrhage from the bowel and the generally accepted idea that it is a most unfavorable symptom, he says he has "seen many a case in which the effect of the hemorrhage seemed to be beneficial when it was arrested before dangerous collapse came on." Quinine he thinks a bad antipyretic and as a tonic it has not answered as well in his hands as serpentaria. Quinine he thinks increases the nervous symptoms even if it does not cause them. Antipyrin, antifebrin and others of the coal tar products have answered well in some instances, but in general are uncertain and the prostration which sometimes follows their use more than counterbalances the benefit. As an antipyretic there is nothing, in his opinion, like cold water, either in the form of the cold pack or frequent sponging over the whole body.

Dr. Simon Baruch contributes a paper on "Practical Data of the application of Water in some Intractable Diseases," reporting a number of cases cured by a water treatment. He sums up his paper as follows: "We pos-

sess in this method a valuable auxiliary to methodical treatment of many, though not all, acute and chronic maladies. In many chronic diseases it has proved so successful after failure of medicinal remedies, that no case should be yielded up as hopeless until hydrotherapy, in some form, has been tried. Domestic treatment will suffice in most cases, but if these fail, a methodical treatment under an expert hydrotherapeutist may be of advantage to the patient."

Dr. O. M. Smith reports a case of "Tracheotomy at Nineteen Months—recovery." The child had been given half of a chinquapin by her brother which lodged in the trachea. It was impossible to dislodge the fragment and tracheotomy was proposed but rejected by the parents for three days till the child developed a traumatic pneumonia. At the operation the fragment was driven out through the incision and five days later the husk was also discharged. The child made a perfect recovery.

Dr. John Walker reports a "Case of Gunshot Wound through the Knee-joint, with recovery without limp." The ball entered the knee at the tibia-femoral articulation on the inner side of the joint, passing through the joint and lodged under the skin on the outer side of the limb. The ball was removed, the wound washed out with 1 to 2000 bichloride of mercury solution, dusted with aristol and put on a long splint, extending from the hip to the ankle, thus securing absolute rest. At the end of the sixth week the patient had perfect use of the knee with normal motion.

Dr. A. S. Priddy reports a case of "Abdominal dropsy mistaken and operated on for an Ovarian Cyst."

Dr. Frank T. Chamberlin reports an abscess of the epiglottis in which recurrence took place after the evacuation of the abscess cavity. The report is illustrated with cuts of the appearance of the abscess.

Dr. T. N. McLaughlin presents some "Notes on the Therapeutical Action of Thiol in the Treatment of Skin Diseases." He uses the drug extensively in the various forms of eczema and reports good results from it. In furuncles and in one case of carbuncle it proved highly beneficial. It can be administered internally in doses of from three centigrammes to one gram, three times a day. Deleterious effects have not been observed. It possesses the following advantages over ichthyol: it is odorless and does not stain the clothing. It can readily be removed from the surface. All the desirable therapeutic properties possessed by ichthyol may be claimed for thiol.

The other papers in this month's magazine are: "Hysterectomy with report of a difficult case successfully treated," by Chas. G. Cannaday.

"Certain animal extracts" by Dr. William A. Hammond, which has already been noticed in THE MEDICAL AND SURGICAL REPORTER for February 11th, page 235. "Case of Early Diagnosis of Tubal Pregnancy" by Dr. Hugh M. Taylor which has been reviewed in the THE MEDICAL AND SURGICAL REPORTER for April 1st, page 513.

JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES.

The March number contains an article by Dr. Hyde on "The Cutaneous Cicatrices of Syphilis" of which fuller mention is made elsewhere in this issue.

Dr. Morison reports "An Unusual Case of Syphilis" which is merely a record of a case of simple syphilis over-treated in the beginning, which was rendered obscure by a peculiar susceptibility of the system to both potash and mercury.

Reports of "A Case of Acute Circumscribed Œdema of the Skin" by Dr. Russell, and "A Case of Congenital Syphilis" by Dr. Hessler complete the list of original communications.

Under "Society Transactions" are reported the proceedings of the New York Dermatological Society, and Section of Genito-Urinary Surgery of the New York Academy of Medicine.

THE NEW ZEALAND MEDICAL JOURNAL.

The quarterly issue for January offers fourteen papers.

Dr. Cleghorn reports the "Treatment used in five cases of Chronic Suppuration, without drainage by the Barker Method," which consists in making small incisions, the thorough removal of the pyogenic membrane by scraping with the finger or special instruments, washing out with large quantities of very hot water, filling the cavity with iodoform emulsion which is squeezed out and bringing the edges of the incisions together with silk sutures without any provision being made for drainage. Dr. Cleghorn also reports "Two Cases of Cerebral Tumor, Localizing Symptoms, Operation." The object in reporting these cases is to obtain an expression of opinion as to the advisability of further operative procedure in case symptoms return, as it seems only too likely they will do. The doctor contributes in addition to these two papers, one as a report of "Two Cases of Acute Purulent Synovitis (knee and ankle) treated by incisions and washing out well with Peroxide of Hydrogen. No drainage. Recovery, with perfect joints."

"Radical Cure in Strangulated Hernia," and "Hydronephrosis of Kidney" by Dr. Gillon, together with a "Report of the Examination of Fallopian Tubes in Three Cases of Tubal Gestation" by Dr. Mackenzie, complete the more important papers.

THE THERAPEUTIC GAZETTE

for March contains five original papers; two are clinical lectures, and three leading articles or editorials. We select from these as the most important

Sympathetic Irritation and Sympathetic Serious Iritis with Cases.

Dr. de Schweinitz in speaking of the affections in which one eye is implicated as the result of disease or injury to the other—sympathetic irritation and sympathetic ophthalmitis—repeats some rules which cover the ground as well as it is possible to do. The

rules are quoted from those which are given by Mr. Swanzy.

"You should perform enucleation, or one of its substitutes, on,—

(1) An eye with a wound which involves the ciliary region to such an extent that sight is immediately destroyed, or that its ultimate destruction by the process of inflammation is practically certain.

(2) An eye which has been wounded in the dangerous region, and in which severe inflammation of the iris or ciliary body has already begun, even if sight is not destroyed.

(3) An eye which contains a foreign body which judicious efforts have failed to extract, and when much iritis is present, even if sight is not destroyed.

These three rules, you will observe, apply to preventive enucleation,—that is to say, the operation is performed in order to check sympathetic disease.

Now let me quote you two which should be your guide, provided the sympathetic disease has already begun.

1. You should perform enucleation, or one of its substitutes, on an eye whose sight has been destroyed, even though sympathetic inflammation has begun in the sympathizing eye, because by this means you remove a source of irritation and hope to render the treatment of the sound eye more effectual.

2. You should *not* perform enucleation, or one of its substitutes, on an eye which has been injured, but which retains some vision, when sympathetic inflammation has begun in the sympathizing eye, because in the end it may prove to be the more useful organ.

Under the last-named circumstances you must employ the medicinal treatment suited to the excitor, as well as that needed by the sympathizer. Generally this treatment consists in the frequent instillation of atropine, local blood-letting, and, if the patient is sufficiently robust, the use of mercury in some form, preferably protiodide by the mouth or inunctions, to the point of tolerance, but not to that of salivation, tonic doses of quinine, and concentrated, nourishing food. The light should be excluded, if necessary with a bandage, but there is no objection to the patient having proper exercise, which usually may be given in the room to which he is almost of necessity confined. Should this not be practicable, he may be taken out with eyes properly protected with bandages."

The Treatment of Gonorrhœa.

Dr. Christian's paper is the result of careful observations made at the genito-urinary clinic of the University Hospital. He offers the following summary of two methods of treatment carried out.

Number of cases of acute gonorrhœa treated by injections at a comparatively early period of the disease, 150; uncomplicated with posterior urethritis or epididymitis, 85; developing posterior urethritis, 52; developing epididymitis, 13.

Acute gonorrhœa treated without injections till the subsidiary stage was well developed, 150; uncomplicated with posterior urethritis or epididymitis, 134; developing posterior urethritis, 12; developing epididymitis, 4.

After a comparison of the results obtained by these two methods of treatment, it would seem that there is but one conclusion to be drawn,—namely, that the use of injections, prior to the subsiding stage of acute gonorrhœa, acts, in quite a large proportion of the cases, as an exciting cause in the production of posterior urethritis and epididymitis; and on this account is not to be considered as the best treatment of the disease.

All patients at the venereal dispensary of the University Hospital are now put upon the internal use of a capsule containing five (5) drops of oil of sandalwood and five drops of oil of copaiba, with one drop of oil of cinnamon. From four to eight of these are taken daily for the first three weeks.

When the "morning drop" persists, an injection of sulphocarbolate of zinc and hydrastis is used.

It is not claimed for this plan of treatment that it in any way cuts short the duration of the disease, but only that it aids in preventing the frequent occurrence of posterior urethritis and epididymitis, the two most troublesome complications of gonorrhœa."

THE OPHTHALMIC REVIEW.

To the February number Dr. Ernest F. Maddox of Edinburgh contributes a paper on

The Prescribing of Prisms.

He passes in review the various methods of testing the latent conditions of equilibrium for near and distant vision by the "finger," "rod," and "card" tests, and the test of the "relative range of convergence," by which is meant the extent to which convergence can be artificially increased or relaxed (by adducting prisms) while accommodation remains the same for an object at some definite distance. For the "rod" test Dr. Maddox states that a series of small glass rods about an inch long should be used, "arranged parallel to each other, and in close contact. Any one can make this for himself by breaking up a long glass rod of about one-eighth of an inch in diameter into short pieces of equal length, laying them side by side on a hard surface, to get them perfectly level, and then fixing their ends with sealing wax. The advantage of this form is the ease with which it is held opposite the patient's pupil, for one of the rods must be in front of it. Dr. Maddox refers to the remarkable persistency of hyperphoria. He writes: "In a doctor of my acquaintance I noted at two separate times, so far apart as two years, a persistent hyperphoria of exactly $1\frac{1}{2}°$. The headache from which he has suffered for many years is very likely connected with it, but I have not yet prevailed on him to try prisms."

An abstract of a paper by Dr. E. Emmert (Bern) on "Keratits Dendritica and Herpes Cornea Febrilis" is to a great extent of a controversial character.

PERISCOPE.

MEDICINE

The Nasal Douche.

Dr. L. A. Dessar, in *Inter. Jour. Surg.*, says: The following rules should be observed in the use of all nasal douches:

1. The handkerchief should not be used for at least ten minutes after douching, inasmuch as in blowing the nose, any fluid remaining in the nasal passages may by a Valsalva action be forced into the Eustachian tube.

2. After douching it is advisable for the patient to remain indoors, so as to avoid exposure to the cold air.

3. During the proceeding the patient should not be disturbed or excited, as this may give rise to an involuntary attack of sneezing, coughing, or swallowing, and thus render it possible for fluids to enter the middle ear.

4. Before beginning the douching a careful examination should be made to see whether both nostrils are free. If one of them is found to be obstructed the douche should be used on the affected side.

5. Plain water should never be employed for douching, as it loosens the nasal epithelium. The addition of a small amount of sodium chloride prevents this action.

6. Concentrated solutions should never be used as a douche.

7. It is not advisable to douche the nose more than three times daily. As a rule, its application morning and evening is sufficient.

8. The quantity of fluid introduced should not exceed ten ounces, the average amount varying from five to ten ounces; *i. e.*, from one to two douche cupfuls for each nostril.

9. The fluid should always be luke-warm.—*Med. Brief.*

Symes (W. L.) On Hiccough.

The writer regarding this as a reflex act believes that the sympathetic connections of the Semilunar ganglion convey the centrifugal impressions rather than the phrenic nerve. His reasons are as follows:

The diaphragm appears to contract *before* the laryngeal muscles, pointing to a closer and more direct communication with the gastric portion of the vagus than even the recurrent laryngeal.

2. The course of the phrenic nerve is healthy, and its respiratory function perfect.

3. The patient has no control over the spasm, while the phrenic is always subservient to one's will.

4. Remedies applied to the origin or course of the phrenic, ice-bags, compres spine, such as blisters, or to the cervical sion, etc., etc., have no effect; while those directed to the diaphragm, stomach, and solar plexus, are generally curative.

5. The connections between the pneumogastric and phrenic by means of the 3d, 4th, or 5th cervical nerves, are remote, and if this were the route taken, the impression must travel more than double as fast on the phrenic than it does on the recurrent nerve, since it reaches the diaphragm before the larynx—conditions which are unphysiological.

6. The experiences of Romberg and Bright, which show that direct irritation of the phrenic will not produce hiccough.

7. The existence of a perfect reflex-loop between the stomach and diaphragm, which more directly answers the purpose, separate from the function of respiration and beyond control of the patient.

8. It being influenced by the acts of deglutition or vomiting to a greater degree than by any respiratory efforts.—*Dublin Jour. Med. Sc.*

A Treatment for Round Worms.

Dr. P. Nicholson (*La Semaine Medicale*), commends the following:

1. Give santonine every day for a week only, for fear of poisoning the child.

2. Every evening on retiring, introduce into the rectum a suppository of the following composition:

℞ Ext. quassia.....6-18 cgms. (grs. j-ij¾)
Cocoa butter.....q. s.
Make ten such suppositories.

3. Apply morning and evening a little salve containing a small per cent. of colomel or the nitrate of mercury together with some extract of quassia.

4. Give from time to time the following rectal injection:

℞ Menthol.....6 cgms. (gr. j.)
Olive oil.....30 gms. (℥j)
Sufficient for one injection.

5. Cut the child's finger nails short and now and then plunge into an infusion of quassia to prevent auto-infection from scratching his anus and swallowing the ova. Finally, combat the constipation with calomel.

ARMY AND NAVY.

U. S. ARMY, FROM MARCH 26, 1893, TO APRIL 1, 1893.

Leave of absence for sixteen days, to take effect on or about April 1st, 1893, is granted First Lieutenant George D. De Shon, Assistant Surgeon U. S. Army, Fort D. A. Russell, Wyoming.

Leave of absence for two (2) months on Surgeon's certificate of disability with permission to leave the Department of the Platte, is granted Captain William G. Spencer, Assistant Surgeon U. S. Army.

Leave of absence for one month with permission to apply for an extension of one month is granted Lieut. Colonel Charles C. Byrne, Deputy Surgeon General, U. S. Army Medical Director, Hdqrs. Dept. Columbia.

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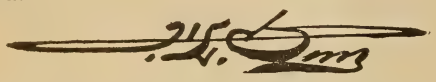
Memphis, Tenn., Jan. 7, 1891.

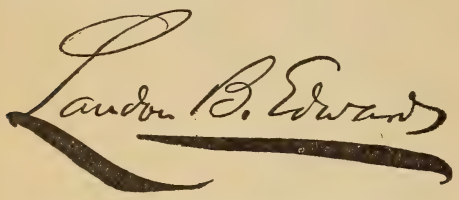
I have found entire satisfaction from the use of your Neurosine in cases of Neuralgia.



Dean Memphis Hospital Medical College.

Richmond, Va., Sept, 29, 1891.

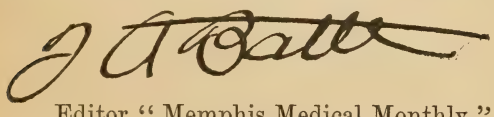
I prescribe Neurosine in the class of cases for which it is indicated, daily, and with satisfactory results. It relieves completely restlessness in fevers.



Editor "Virginia Medical Monthly."

Memphis, Tenn., Feb. 6, 1892.

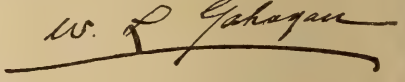
I take the opportunity to express my gratification at the happy results obtained from the use of Neurosine. It is certainly the best neuralgic remedy I have used and will ever be found among my prescriptions. I have tried it in two cases of trifacial neuralgia, after having tried some of our most powerful remedies, such as belladonna, opiates, quinine, gelsemium, arsenic, etc. None acted so well as Neurosine.



Editor "Memphis Medical Monthly."

Chattanooga, Tenn., Sept. 9, 1891.

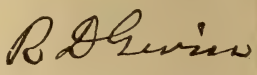
The completeness of the formula of Neurosine as displayed on the bottle at once attracted my attention. The sample was used and I must say the preparation has given better results and more universal satisfaction than any combination ever used by me. Have tried it in many nervous affections, in some it is a specific, in others a therapeutic agent of very great value.



Coroner Hamilton County.

McKenzie, Tenn., Feb. 12, 1891.

Neurosine had such a happy effect in a case of neuralgia or congestive headache in which I tried it, often having failed on other things of similiar nature. The case was one of long standing sick-headache of peculiar character. The lady, three days after confinement, without any fever, took severe headache. Neurosine relieved her immediately.



Stebbins, Va., March 8, 1892.

I have made fair trial of the Neurosine, and must say that it is in my hands the very finest neurotic I have ever used.

SAM'L HALES, M. D.

Ethridge, Tenn., March 23, 1892.

I gave Neurosine a fair trial in a case of neuralgia of the head and neck after a severe case of la grippe. It acted like a charm. Came up to all requirements.

C. D. HAMPTON, M. D.

Fourche Arcuault, Mo., March 18, 1892.

I sent about two tablespoonfuls of Neurosine to an old lady, aged 84 years; she had been complaining for some weeks with headache and neuralgic pains all over her body more or less. She took that small amount and has been quite free from pains ever since; went to church in a farm wagon 1½ miles, rough road, and is still free from pain, and sleeps and eats better. I am well pleased with it.

U. H. JOHNSON, M. D.

DIOS CHEMICAL COMPANY, ST. LOUIS MO., U. S. A.

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APRIL 15, 1893

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ORIGINAL ARTICLES.

WILLIAM B. DEWEES, A. M., M. D., Salina, Kansas.
Postural Pathology and Therapeutics in Obstetrics and Gynecology. 557

JOSEPH PRICE, M. D., Philadelphia, Pa.
Dermoids. 561

COMMUNICATIONS.

ELLISTON J. MORRIS, A. M., M. D., Philadelphia, Pa.
The Administration of Ether for Surgical Operations. 569

LEWIS SCHOOLER, Des Moines, Iowa.
Uterine Fungosities. 573

T. C. EVANS, M. D., Louisville, Ky.
What is the Sphere of the Nasal Spray? . . . 573

SOCIETY REPORTS.

Obstetrical Society of Philadelphia. 575

The Clinical Society of Louisville. 580

CORRESPONDENCE.

Philadelphia—The Medical and Surgical Centre of America. 585

EDITORIAL

Support the Medical Examiners' Bill. 588

BACTERIOLOGICAL NOTES. 590

ABSTRACTS 591

CURRENT LITERATURE REVIEWED . . . 593

PERISCOPE

MEDICINE 595

SURGERY 595

GYNECOLOGY 596

ARMY AND NAVY 596

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THE
MEDICAL AND SURGICAL
REPORTER.

No. 1885. PHILADELPHIA, APRIL 15, 1893. Vol. LXVIII—No. 15

ORIGINAL ARTICLES.

POSTURAL PATHOLOGY AND THERAPEUTICS IN OBSTETRICS AND GYNECOLOGY.*

WILLIAM B. DEWEES, A.M., M.D., Salina, Kansas.†

Hippocrates asserted that "accurate observation of facts, and correct generalization from them, forms the only rational basis of medicine," and so we are taught to-day. Grecian philology baptized man *anthropos*, the being with the upturned-heavenward-face. Throughout the animal kingdom the gift of bodily erectness is reserved to the human being alone. The dignity of the natural erect posture lies in the two following facts, namely: First, that by and through the primitive erect posture of his body, man is installed in his recognized lordship over the beast of the field; and second, that corporeal perpendicularity is both significative and comprehensive of physical healthfulness. Thus, it is manifest that the chief characteristic of anthroposophy is the philosophy of the erect posture.

Inasmuch as the prime object of addressing this august body of specialists is to present facts and to elicit truth by discussion in a given limited time, I must needs be brief. This object I will endeavor to fulfill by the light of general anatomy, common sense and experience, in calling your attention to the correct and the incorrect posture as related to uterine displacements.

Perpendicularity of the body is, mainly, the result of an equipoising of the upper half of the body upon the central part of the lumbar curve of the spine. This center in the lumbar curve is vertically supported on two equal bases—the femur heads— and by the aid of the mathematical diagrams (Figs. 1 and 2) is demonstrated to be the body's center of gravity. The body being equipoised upon this center, in both its axes, is literally pressed into symmetry by, and in the ratio of its own gravity. This balanced state of the perpendicular body is principally sustained by virtue of the normal tension of the spinal muscles, until the eqilibrium is broken by muscular or other disturbing force.

It will be observed, further, that the lumbar curve being in the body's centre of gravity, *i. e.*, vertically in line with the ankle and the ear, is not only the centre upon which is balanced the upper trunk transversely and antero-posteriorly, but that it is also at the same time the maintainer of pelvic obliquity. As such it is a fundamental point, since in the correct erect posture all decided movements of the upper trunk are derived from, and dependent upon, preceding opposite shifting of the lumbar spine. That is, neither bowing nor leaning backward can be ac-

*Read before the Western Association of Obstetricians and Gynecologists, Kansas City, Mo., December 27th, 1892.

†Vice-President of the Pan-American Medical Congress for Kansas; Ex-President of the Golden Belt Medical Society; Fellow of the American Association of Obstetricians and Gynecologists; Member of the Western Association of Obstetricians and Gynecologists, etc., etc., etc.

complished to a considerable degree without falling, unless the lumbar curve advances or retreats in the opposite direction. As the lumbar curve either advances or retreats from its central bearing, so will it, in the same ratio, increase or destroy pelvic obliquity by forcing the promontory of the sacrum to either ascend and advance, or retreat and descend, thereby compelling the pelvis to swing to a corresponding degree upon its base—the femur heads.

The philosophical conclusion of the aforesaid observation on the erect posture is, that the lumbar curve is the fundamental point and the spinal muscles the controlling source of both bodily symmetry and deformity. By a glance at Figs. 3, 4, 5 and 6, we have this truth fully demonstrated. Figs. 3 and 4 are photographs taken from life, and show typically the external form of the body in the correct (perpendicular) and the incorrect (stooping) erect postures as ordinarily observed in women. Figs. 5 and 6 represent, respectively, Figs. 3 and 4, showing their internal relations. As the model body, in both its external form and internal relations, is typically represented in the perpendicular and in the stooping postures, by Figs. 5 and 6, respectively, let us examine them somewhat in detail.

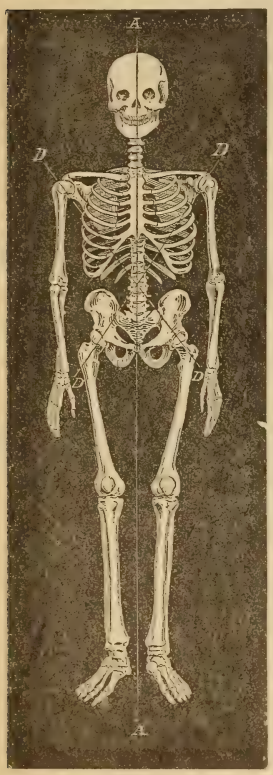

Fig. 1

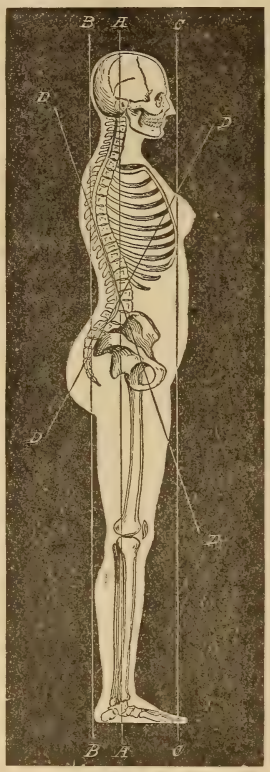

Fig. 2

Fig. 3

In the correct erect or perpendicular posture (Fig. 5), we notice that the body is well balanced with due symmetry and order prevailing throughout involving important, anatomical and physiological considerations. Here we notice:

First.—That, by and through the advanced lumbar curve, in vertical line with the ankle and

In the incorrect erect or stooping posture (Fig. 6) we notice that a very different state of both the outer form and the internal relations obtains. Symmetry and order are destroyed, and deformity and disorder prevail, involving important pathological and therapeutic considerations. Here we notice:

First.—That by and through the retreated lumbar curve, considerably behind the vertical

the ear, and the normal tension of the spinal muscles there is a consequent natural tensity of the pectoral and abdominal muscles, with the dorsal and lumbar curves of the spine, acting reciprocally as neutralizing equivalents.	line between the ankle and the ear, and the abnormal laxness of the spinal muscles, there is a consequent unnatural laxity of the pectoral and abdominal muscles. The head and feet remain intact, while the middle of the body—the lumbar axis—has shifted, thereby destroying the reciprocal equalizing neutralization of the dorsal and lumbar curves. Thus the influence of gravity alone has caused the droop, because the axis has receded.
SECOND.—That the pelvis is forced to remain so swung upon the femur heads as to occupy an obliqne position, *i. e.*, the promontory of the sacrum is elevated and advanced, the pubes retreated and depressed, and the plane of the pelvic cavity comparatively vertical. Thus the intra-pelvic organs occupy naturally a position very largely below and behind the sacral promontory, and are thereby very considerably sheltered from superincumbent weight.	SECOND.—That the pelvis is forced to be so swung upon the femur heads as to occupy a horizontal position, *i. e.*, the promontory of the sacrum is retreated and depressed, the pubes ascended and advanced, and the plane of the pelvic cavity rendered comparatively and unnaturally horizontal, with its axis in direct line of the depessing influence of visceral gravity. Thus the intra-pelvic organs now occupy an unnatural and unsheltered position, being exposed to all the evil consequences of superincumbent weight.
THIRD.—That the entire visceral weight of the abdominal organs rest mainly upon the pubes and the lower portion of the tense abdominal muscles, which maintain the viscera compactly elevated and coerced against the diaphragm, while the tense pectoral muscles advance and expand the chest. Hence there is a fullness of the chest together with largeness and rotundity at the hypochondres and the epigastrium with a firm state and trim form of the lower abdomen.	THIRD.—That the distance between the ensiform cartilage and the pubes has been greatly diminished, the pectoral and abdominal muscles have become lax, through which the viscera have lost their support and are now left to gravitate in the pelvis, upon the intra-pelvic organs and through them upon the intra-pelvic nerves, arteries, veins and lymphatics. Hence there is now a contracted chest together with a narrowed and retreated state at the hypochondres and epigastrium, while the hypogastric and iliac regions are unnaturally full and tumid—the inferior abdominal cavity being greatly enlarged antero-posteriorly.

Having seen plainly, in the light of physiological law, that the strong spinal and abdominal muscles are the chief conservators of the natural erect posture and the normal visceral bearings; and, that a lax state of these same muscles is the main influence in the production of the unnatural erect posture and uterine displacements, we will now take a comprehensive and critical observation of the status of each part chiefly concerned in this class of cases, with a view to successfully restoring them to health.

As the destruction of pelvic obliquity and visceral weight, are the prime factors in the production and maintenance of uterine displacements, it follows as a simple truth that, to remove this influence, the first indication is to restore the primitive trunkal and visceral bearings. This

Fig. 4

brings us to consider the most essential and fundamental therapeutic means, namely: How shall we best accomplish this first step to a radical cure? *Can it be accomplished by medicine?* Evidently impossible; so testify the facts in history.

Will it be secured by rest in the horizontal posture? Not in the premises; is the verdict of the most sagacious observers. *Is the purpose effected by exercise?* The consensus of opinion of the most careful practitioners proclaim in the negative; for in most cases the unnatural lax state is

not the result of inaction from indolence, but from exhaustion under untoward influences. Hence exercise would be a direct injury, inasmuch as in a depressed state of the uterus the influence of muscular effort is downward.

Shall we obtain it by pessaries? Both experience and physiological law substantiate the fact that, in the main, pessaries are prejudicial; as at best they can only serve to crowd the uterus upward against the depressing force of visceral gravity. *Do we find it fulfilled by abdominal supporters?* Most decidedly not; as the influence of their action is only compressing and depressing in that they fail to restore the normal pelvic obliquity and tensity of the spinal and abdominal muscles, and allow the lumbar spine to remain receded behind the true axis of the body.

Thus, is manifested in a concise manner, that the foregoing measures,—the usual means offered by our text books and works of reference—are inadequate and unadapted, either alone or conjoined, to the physiological and therapeutical requisites

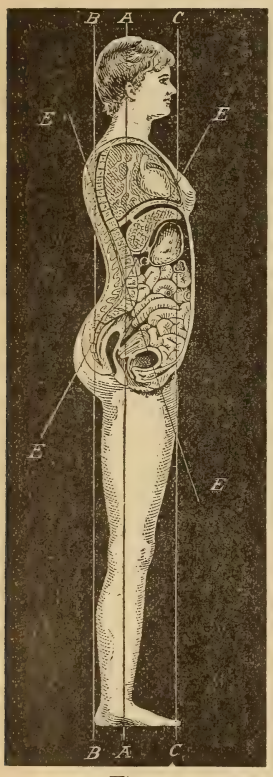

Fig. 5

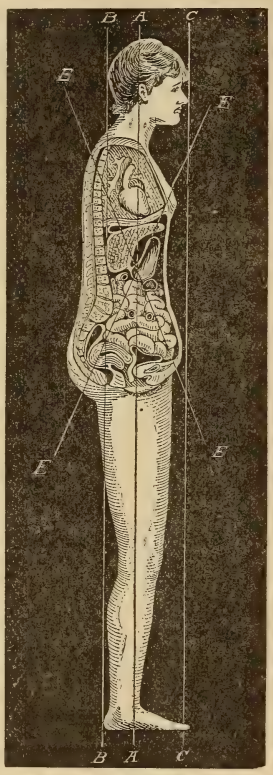

Fig. 6

Fig. 7

of a successful restoration of uterine displacements. Consequently, under the absolute necessity of obeying the physiological law, we find ourselves compelled to seek aid through some other means that will fulfill the therapeutic wants in this class of cases. The medium through which I have been enabled to successfully accomplish this desideratum, and to which I most confidently call your attention, is the ingenious contrivance shown in Fig. 7, manufactured by The Natural Body Brace Company of Salina, Kansas. Whenever I have properly applied this brace upon the body of a case of uterine displacement, wherein obliquity of the pelvis was destroyed by the lumbar curve being receded, together with a settled state of the upper trunk and a laxness of the abdominal muscles, I have invariably been successful in accomplishing a manifest immediate change from the unnatural to the natural erect posture, resulting in grateful expressions from the patient for the relief and comfort secured. The permanent good results obtained by the use of this

appliance in a large number of cases, have so convinced me of its valuable properties that I now look upon it as my chief reliance in the treatment of this class of cases. It will be specially noticed that its conjoined influence upon the lower abdomen and the pubes, as well as upon the lumbar spine and the shoulders, is such as to exert the requisite force to cause the upper half of the body, to become again equipoised upon the body's primitive centre of gravity in the lumbar curve, which is now again brought forward in the true axis of the body, while the pelvis is thereby forced to become so swung upon the femur heads as to occupy its natural oblique position. Thus by its bracing influence, the spinal, pectoral and abdominal muscles are aroused and aided to their normal tensity, whereby the primitive trunkal and visceral bearings alone can be restored and maintained.

In presenting these humble and mperfectly described observations on the philosophy of the erect posture and its influence as a therapeutic means in the rational treatment of uterine displacements for your kind consideration and discussion, I have earnestly endeavored to simply elevate a fundamental truth from the condition of a mere latent fact to that of an active principle; being at the same time mindful of the facts that "a good principle not rightly understood may prove as hurtful as a bad," and that "there is no falsity equal in mischief to that of truth when perverted and misapplied." As philosophy is ever true but may be misapplied, while established facts are always both true and scientific, the conclusion is warranted that any means whatsoever which most essentially aids in the foundation of a cure, should outweigh any opposing authority in our selection of remedies. It is the facts of important discoveries which usually appear first, and afterward their philosophy.

The truth to be kept foremost in mind is that there is such a thing as unerring language of nature in the human body, which can only be learned by observation. When this comes to be rightly understood it will greatly shorten our examinations, reduce our misjudgments and mistakes, gladden our hearts with more certain diagnostic and prescriptive criteria and elevate ourselves in our own eyes and in the eyes of suffering humanity.

DERMOIDS.*

JOSEPH PRICE, M. D., Philadelphia.

I have made this choice of tumor because the complications are about always present. Sometimes simple, but usually extensive and aggravated. Commonly there are very general adhesions to all surrounding structures or viscera, requiring cautious, painstaking surgery. They have a marked tendency to suppuration and inflammatory action; and in dealing with these cases there is needed a prolonged experience with suppurative forms of pelvic disease. Many of these cases are neglected, or go unrecognized until the patient demands relief at the hands of some specialist.

Dermoids are commonly small, their contents mixed and filthy. Occasionally fluid occurs in considerable quantities. In considering this subject I shall quote freely from that eminent pathologist, Mr. Bland Sutton, primarily for the reason that my own observations, the deductions of not a few experiences, are confirmed by his clear, concise, logical discussion of the subject. He has done much to help us out of our ignorance and confusion on the subject of dermoids. He has gone very far in settling for us their origin, the puzzling question of their pathology, the causes of development, their size, contents, etc.

He says: "The cysts which arise in connection with the ovary and parovarium may be conveniently arranged in three groups, according to the region in which they happen to arise:

"(1) Oöphoron, unilocular cysts, multilocular cysts, cystic corpora lutea, dermoids.

"(2) Paroöphoron, papillary (proliferous) cysts.

"(3) Parovarium, parovarian cysts,

*Read before the Obstetrical Society of Philadelphia.

pedunculated cysts hanging from the broad ligament.

"My first efforts were directed toward ascertaining the relation of dermoids to these three regions of the ovary. In all the examples of ovarian dermoids dissected for the purpose, it was easy to demonstrate that the parovarium was unconnected with them, but in several cases this structure differed in minor particulars from the usual arrangement of the tubules. Another interesting fact was the frequent association of malformation of the Fallopian tube with dermoids. In some cases there was an accessory abdominal ostium; in others the tube would have no abdominal opening whatever.

"These conditions have but little bearing on the pathology of ovarian dermoids, for they seem to be quite as frequently associated with other forms of ovarian cystomata. It now became necessary, seeing that ovarian dermoids have no connection with the parovarium, to ascertain as far as possible to which district of the ovary they belong. When a cyst attains a large size this task is an impossible one, but in dermoids of the size of a walnut, and sometimes when they are as large as an orange, it is easy to show that they originate in the oöphoron, and a series of observations carried out for this purpose has had the result of convincing me that ovarian dermoids arise in the same portion of the ovary as multilocular cystic tumors. These cysts arise in the Graafian follicles, and it is my intention to proceed to show that ovarian dermoids also arise in these follicles. Having localized the situation of ovarian dermoids to the oöphoron, the task became simple but laborious, for it involved a large amount of histological work.

"When an ordinary oöphorite cyst is compared with a typical dermoid the difference is very striking. In the simple non-dermoid ovarian cyst we find the interior lined by a single layer of flattened epithelium, and this may be difficult of detection. The dermoid, on the other hand, may present skin, hair, sweat and sebaceous glands, teeth and even a mamma.

Should the non-dermoid ovarian cyst be multilocular the individual cavities may, if not too large, present a membrana granulosa; in the dermoid the loculi are lined with skin, furnished with hair, etc.

"It may also be mentioned, as tending to show the close connection between ovarian glandular cysts and dermoids, that it is no unusual thing to find mucous cysts in the smaller loculi in the walls of dermoids. We must now proceed to consider the simplest form of an ovarian dermoid.

"If a cyst in the ovary presents the smallest piece of skin, furnished, perhaps, with only two or three hairs, its dermoid character is established. The presence of a tooth without any skin is sufficient. As a matter of fact every gradation may be traced from the membrana granulosa of an ovarian follicle to the glandular cutaneous lining of a dermoid. In some specimens the epithelial investment is indistinguishable from that lining an unilocular cyst. Yet in one small portion of the cyst wall a few hairs on a patch of skin place them in the category of dermoids.

"Thus far we know that ovarian dermoids resemble non-dermoid ovarian cysts in that they usually consist of one large cyst surrounded by numerous smaller ones. We have already seen that a multilocular cyst of the ovary may present only one tiny patch of dermoid tissue, though the tumor is composed of a multitude of cavities, great and small. There are good grounds for the belief that if all multilocular ovarian tumors were systematically examined patches of dermoid tissue in the cyst would be found to occur with very great frequency. Lastly, an ovarian dermoid may be multilocular, all its cavities presenting skin, hair, or teeth, or all three structures in the same cyst.

"Thus in the general disposition of the cavities, single, multiple and mixed, dermoids and non-dermoid ovarian cystomata are in agreement. The most highly-organized ovarian dermoids are those which contain a well-developed mammary gland capable of secreting a fluid resembling milk.

"In order to obtain teeth in a cyst lined with mucous membrane we need calcify some of the cellular projections, and a dermoid is the result. Calcific patches and cartilage are not peculiar to dermoids; they have been seen in non-dermoid ovarian cysts. Finally, although there are striking differences between simple ovarian cysts and complex dermoids, nevertheless the difference between a complex ovarian cyst and a simple der-

moid is practically *nil*, and, as a matter of fact, the glandular ovarian cysts are often structurally more complex than many dermoids, and I see no escape from the conclusion that *ovarian dermoids, like oöphoritic cysts in general, originate in Graafian follicles.*

"It must be borne in mind that a distinction exists between dermoids occurring in such situations as the angle of the orbit, tongue, neck, etc., and ovarian dermoids."

So interesting and important in our surgery is the subject of dermoids that we will collate the best of modern authority, this with a sense of certainty that too much light cannot be thrown upon a subject which has been, and is yet, involved in not a few doubts.

Pozzi, p, 100, Vol. II.

Mixed tumors, as well as dermoid cysts, often ossify; but a study of their structure emphasizes the interesting fact that the fragments of bone are not necessarily situated near the dermoid cyst, but may, indeed, be quite independent of them.

Pozzi, p. 121, Vol. II.

The frequency with which purely dermoid cysts are met in certain parts of the head and neck is well known; on the other hand, the complex tumors called teratomata are often met with at other points (sacral region, anterior mediastinum, palatine arch).

Pozzi, p. 121, Vol. II.

Velitz, of Budapest,* reports a curious case of dermoid cyst with a mamma. Woman, aged forty years, who had borne twelve children. Ovariotomy was performed for a dermoid cyst containing oily matter mixed with white hairs; upon the internal wall was found a sort of mamma as large as a child's fist; a little milk resembling colostrum was squeezed out from the nipple. The areola was pink, and surrounded by a circle of hairs.

Pozzi, p. 121, Vol. II.

In the Museum of Clinical Gynecology at Halle, there is a piece of a dermoid cyst taken from a goose, and containing several feathers.

Pozzi, p. 121, Vol. II.

Baumgarten, *Virchow's Arch. f. Path. Anat.*, Bd. CVII, 1887, p. 515. The finding of retinal epithelium has already been reported by Marchand, *Bresl. Arztl. Zeitschr.*, 1881, No. 21.

Pozzi, p. 121, Vol. II.

A. Fränkel, Ueber Dermoidcysten der Ovarian, und gleickzeitige Dermoide im Peritoneum, *Wiener Med. Wochenschr.*, 1883, No. 28, *et seq.*

Pozzi, p. 96, Vol. II.

They are usually small, but they may become voluminous by uniting with proligerous cysts, or even in consequence of acute inflammatory attack which suddenly increases their fluid contents. Though they may be long unrecognized, and perhaps revealed only by chance at the autopsy, as they begin (p. 97, Vol. II) to enlarge they approach, from a clinical point of view, the ordinary proligerous cysts that I have just described. Poupinel has gathered data in regard to forty-four cases where both ovaries were *transformed* into dermoid cysts. (See Thése de Paris, 1886, Poupinel.)

They are much less frequent than proligerous cysts.

Olshausen collected statistics of 2275 cases coming from a series of (operations) ovariotomies performed by Spencer Wells, Keith, Schroder, Krassowski, A. Martin, Billroth, C. v. Braun, Esmarck, Dohen and himself. Out of this number there were only eighty dermoid cysts (3.5 per cent). Their internal surface is covered with a membrane which looks like the skin, and which has a similar structure; we may see on it a corneous layer formed of several layers of flat and thin spheroidal cells, like those of the rete Malpighii.

Pozzi, p. 97, Vol. II.

A panniculus adiposus separates the dermic layer from the fibrous capsule of the cyst. Upon the surface of the derma are papillæ which may look like nipples, and some hairs which are inserted into hair follicles occasionally provided with a sebaceous gland; the latter were first demonstrated by Friedländer.

Sudoriparous glands are also found. The hairs whether free or implanted, are long, tawny, agglutinated together by sebaceous matter, and sometimes rolled into little balls.

Sebum, resembling the vernix caseosa, partly fills the cavity, and often forms small, isolated masses; it is sometimes oily in consistency, and contains many epithelial cells, cholesterin crystals, and fatty acids.

*Archiv. f. Path. Anat. und Phys. und Klin. Med. Bd. CIII. Heft 3.

Teeth and bones have been found in these cysts; bones are inserted in the wall, and more or less covered by the dermic layer (Pozzi, p. 98, Vol. II.); they are irregular in shape, usually flat, and formed of compact tissue; cartilage is present in small patches, which, according to Labbé and Verneuil, sometimes articulate by means of intervening fibrous bundles.

The teeth project into the cavity, and are often loosely inserted into alveoli formed of bony débris. They are never perfect in shape, and cannot be absolutely identified as incisors, canines or molars; the cement is usually absent.

Pozzi, p. 98, Vol. II.

Hollaender makes the interesting statement that the teeth are always placed with crowns sloping toward the median plane of the body, so that an examination of the cyst cavity will always determine the side of the body upon which it originated. As many as a hundred teeth have been found in one cyst (Schnabel).

Autenrieth describes a case where 300 teeth were taken out of a cyst which contained even more.

Some writers claim to have found carious teeth, but, as Lannelongue observes, Magitot is probably correct in thinking that this is not really caries, but a phenomenon of wear and absorption.

P. Ruge found in a dermoid cyst just below a bone which resembled the inferior maxillary with its molar teeth, a small mass which in form, size acinous structure had every appearance of a submaxillary gland.

Pozzi, p. 99, Vol. II.

Unstriped muscle fibres have been found in the dermic layer (Virchow); as to the striated fibres, Olshausen denies their existence, saying that where they are found the case is probably one of teratoma instead of dermoid cyst. In truth, many authorities confuse the two.

Pozzi, p. 99, Vol. II.

Cruveilhiér quotes a case where nails were found; Baumgarten reports a most remarkable case where the cyst, besides skin, hairs, and teeth, contained a body which resembled an eye, with a species of convex cornea and epithelium like that of the retina. There was also a mucous membrane similar to that of the intestines and stomach, and encephaloid nerve substance.

The presence of gray matter in dermoid cysts is a knotty point. In one case Virchow found gray matter, laminated as in the cerebellum; Key found some enclosed in a bony cavity; Rokitansky, in a species of capsule near a bone; other pathologists have, in exceptional cases, found nerve filaments supplying the teeth (Mahot and Legros.)

Pozzi, p. 100, Vol. II.

Besides these solid substances, dermoid cysts contain a milky fluid, in which are often chlosterin crystals.

Mixed tumors, formed by a combination of dermoid with other forms of ovarian cysts, have long been known (Lébert, 1857).

The subject has recently been studied by Pouperial (*Thése de Paris*, 1866), who states that in one and the same tumor we may find in closest union dermoid cysts and cysts with pavement epithelium, cubical ciliated, goblet, polymorphous cells, etc. More than this, in the same cystic cavity we may find the epidermis with its appendages (hairs, sebaceous and sudoriparous glands), and a lining of uniform or polymorphous epithelium. Finally, the interior lining of the cavity may be entirely formed of skin, which may, however, be incomplete. In some instances the cutaneous lining is found in a few places only of the dermoid cavity, and may be in the form of large papillæ, into which are implanted the hairs. The rest of the cyst wall is smooth and fibrous, or else looks more mucous than cutaneous.

Regret that thorough histological examinations of so-called dermoid tumors are rare. Were they more frequent it is probable that many cases of so-called dermoid cysts would be classed with mixed tumors. The fibrous stroma is usually formed of young connective tissue, of adult or myxomatous tissue. Yet, besides teeth which are produced from the ectoderm, and are met with only when there is a cutaneous lining, we find cartilaginous and bony tissue in the fibrous walls of mixed tumors. It may also be seen in tumors which possess no dermoid characteristics.

Poupinel reports an example of a mucoid cyst of the ovary, followed by the

appearance of cysts of the same nature all over the body; cartilaginous nodules found in its walls.

Both ovaries may be simultaneously affected. In that case, as in the case of unilateral ovarian tumors, combinations of every variety of cyst may occur. Every ovary may contain an epithelial mucoid tumor, with polymorphous epithelium or epithelium of one kind alone.

For instance, both cysts may be lined with ciliated epithelium (Brodowski, etc).

Pozzi, p. 101, Vol. II.

Oftentimes both ovaries are transformed into mixed tumors (Flesch, Neuman, Poupinel).

There may be a dermoid cyst upon one side and a mucoid cyst upon the other (Lebert, Young, Herchl, Mugge, etc.), or a mucoid cyst on one side and a mixed tumor on the other (Poupinel).

Pozzi, p. 101, Vol. II.

The question of *origin* of dermoid cysts is one of the most obscure points in general pathology.

The theory which ascribes them to *extra-uterine pregnancy* scarcely deserves mention, since they are often met with in children.

The theory of *diplogenesis* by fœtal inclusion is also inadmissible, and is at once disproved by the great number of teeth present.

The term *plastic heterotopia*, used by Lebert, is no explanation, but merely a name.

There are a few more tenable theories; that of *parthenogenesis*, which considers their formation due to a proliferation of germinating epithelial cells, is not satisfactory, because it fails to account for the presence of similar growths in other parts of the body where there is no epithelium.

The theory of *impaction*, although not beyond criticism, is on the whole the most satisfactory. According to this view, during intra-uterine existence certain portions of the blastoderm become impacted by pressure within the tissues, and develop there later, giving rise to an irregular formation of the normal tissues. Verneuil was the first to formulate this ingenious theory in regard to cysts of the branchial clefts of the neck and head (1883).

The demonstrations of his in regard to the axis cord, from which he claims that the genital organs are developed, assist us in understanding the complexity of the elements found in dermoid cysts of the ovary. The organs which are formed by all the layers of the blastoderm are the only ones which take part in the formation of the axis cord. It is impossible by dissection to identify the different germinative layers; we can easily imagine, therefore, that portions of tissue corresponding to the corneous layer, the medullary tube (ciliated epithelium), or the middle layer (muscle, bone), may become misplaced in the ovary as in the testicle. The impaction receives strong corroboration from these researches. (Olshausen, *Die Krankheiten der Ovarien*, Stuttgart, 1886, p. 404.

Lannelongue* adopts (impaction) it unreservedly. He calls attention, moreover, to the fact that the development of these tissues, foreign to the parts in which they are situated, brings about certain modifications in the structure of the latter, which add to the complexity of the abnormal growth. Perhaps this may explain the union of proliferating ovarian cysts to dermoid cysts, and the various transitional stages in these neoplasms. Still, Lannelongue does not entirely reject the idea of *diplogenesis* in cases where fœtal remains are found in cysts, which he terms fœtal cysts. He considers them to be combinations of cysts and double monsters; the cause giving rise to the production of the monster being intimately associated with that which determines the formation of the cyst. One or the other may predominate, according to the case; the higher we go in the series the more does the element of the monstrosity predominate, and the more does the cyst element tend to diminish and disappear. Thus, in the genesis of these tumors there are two factors to be considered: (1) the production of cystic cavities, and (2) the existence of a centre of supplementary development. To admit the existence of this (secondary) independent centre is to satisfactorily account for the complex character of these neoplasms, but it must be confessed that the admission creates problems quite as difficult of solution as those which it destroys.

*Traite des Kystes Congenitaux, Paris, 1886.

Thomas and Munde, p. 667.

In various parts of the body, orbit, floor of mouth, brain, eye, anterior mediastinum, lungs, mesentery, testicles, ovaries, peculiar cysts containing fat, teeth, hair, cholesterin, cartilage, bone are sometimes found. Their walls give evidence of the existence of sweat glands, sebaceous follicles, papillæ and an inverting epithelium, so that the microscopic appearance of the walls resembles closely that of skin. Many fanciful theories are given as to the origin of these peculiar growths. It is believed that they are the result of an irregular and eccentric development of the tissues of the fœtus during intra-uterine life. It was Lebert who advanced the theory that from the elements present spontaneous generation of a portion of skin occurs, and this being given we have, as Dr. Farre expresses it, "the basis out of which many of these products spring."

M. Pignè has analyzed eighteen cases with reference to the *period of life* at which they were found, with the following results:

5 existed in virgins under 12 years.
5 " " children from 6 months to 2 years.
4 " " the female fœtus at term.
3 " " fœtuses cast off at the eighth month.

Vary in size from a hen's egg to adult head, rarely larger. Are hard and generally globular. One ovary is usually affected and by only one tumor, but instances are on record where a single ovary contained several dermoids.

Thomas and Munde, p. 669.

Out of fifteen cases of dermoid cysts operated on by me, in three both ovaries were affected in this manner. One of these three women was pregnant at five months; from another, a single woman, 39 years old, I removed a switch of hair 2½ feet long, which after dissolution of fat contained in it by immersion in ether, it lengthened to 5½ feet.

Innocuous in themselves, not likely to increase rapidly or to attain great development, they sometimes set up very serious and even fatal disturbance by one of three methods: (1) suppuration and consequent abscess; (2) by perforation and discharge into peritonæum; (3) by cyst containing dermoid elements, secreting fluid and changing its character to that of a fluid tumor.

Out of 150 ovarian tumors removed by me, four were large cysts having as bases dermoids containing fat, hair and bone. In these cases the cysts containing the dermoid elements were not in communication with the large cysts filled with fluid colloid which constituted the mass of the tumor. In two cases the tumor was nearly removed when a cyst filled with fluid, fat, etc., was opened into. The large cysts appeared like ordinary multilocular cysts.

Often discovered by accident only. Often movable. Their tendency to inflame spontaneously.

Thomas and Munde, p. 670.

Produces pain and even elevation of temperature, which leads to their discovery, or their pedicle becomes twisted, or they are bruised accidentally.

Janvrin (of New York).

A bunch of hair protruding from rectum led to the discovery; patient pulled away hair; some years later her abdomen began to swell; two ovarian tumors diagnosed; on removal both proved to be dermoids, one of which had perforated into rectum.

Pelvic abscesses have been proven to owe origin to dermoids by hair, etc., escaping from sinus of supposed abscesses into vaginal vault (posterior). Should be removed by laparotomy as soon as discovered. Three chief periods in female life which seem to excite the dormant growth of dermoid tumors of ovary: (1) puberty; (2) martial relations; (3) pregnancy and parturition.

Greig Smith, p. 114

About one in ten ovarian tumors entirely or partially dermoid. Exact origin uncertian. Generally admitted that rudiments of all dermoids exist at birth, and that they remain quiescent indefinitely, or start into active growth at any period from or *before* birth to old age. Dermoid ovarian growths most frequently manifest themselves after puberty.

Greig Smith, p. 115.

Dermoid cysts is usually divided by septa into separate portions; and the contents may differ in various loculi.

The main cyst often contains a greasy, chocolate-colored fluid, while the others

are full of the characteristic sebaceous material.

Most striking contents are pieces of true bone, most frequently stunted alveolar processes.

Sebaceous follicles in the cyst-wall frequently attain to the dimensions of secondary cysts, and a similar development may take place in the sweat glands.

Malignant tumors have been found growing in dermoid cysts. (Bristol Infirmary; woman 59 years old; suppurating dermoid, in wall of which a solid sarcomatous growth, as large as a hen's egg. No secondary, malignant development in woman as yet.)

More than one observer has noted that malignant tumors of the abdominal cavity sometimes follow removal of dermoid cysts; no doubt the primary elements existed in the dermoid growths.

Both ovaries are liable to be diseased in a proportion of cases larger than in cystoma.

Ordinary glandular cystic disease is found to co-exist with dermoid cysts in a proportion of instances larger than would be likely if it were mere coincidence. Any casual connection between the two is not likely to be more than a stimulus to development started by increased vascular supply from the one which first began to take on diseased action.

Greig Smith, p. 116.

The *outer aspect* of a dermoid cyst is different from that of an ordinary cystoma. The glistening, pearly aspect of the latter is replaced by a muddy or opaque appearance, darker in color, sometimes approaching brown.

Adhesions are common in dermoid cysts, chiefly because they are liable to become inflamed.

Surgery of itself, in all abdominal work, to be successful must be clean, rapid, positive and direct of purpose. There should be no bargaining with chances, nothing begun in doubt, and it should be carried through to a finish with mathematical strictness in every detail. Rapid, deft surgery gives the best results throughout all surgery, special and general; it minimizes the harmful results of exposure and manipulation.

Short anæsthesia never waterlogs a patient. I am satisfied that a number of patients die from prolonged anæsthesia and the slow, hesitating and sluggish steps of the operation. Death will rarely follow a short anæsthesia and an operation shortened by a deft sweep and dextrous manipulation. We have rapidity of operation as an essential. Those who have had many surgical experiences, whether abdominal, pelvic or general, and have failed to consider time as an important element, have equally failed to carefully study many important phases in their surgical experiences and note the causes of their varying results. The rationalé of this must be plain to all. We have this one undisputed truth amid the many confusions the strong light of modern surgery has not yet driven out.

During these surgical procedures you cannot enjoy the delights of the aroma of a Wheeling stogie while you discuss a glass of Kentucky best and the advantages of the annexation of the Sandwich Islands. There should be the very perfection of cleanliness before, during and after operation, that extending to every detail and appliance and combined with the utmost simplicity of method. I would not place special stress upon any particular period of treatment, each and all should be regarded as having a peculiar importance—the one preliminary to, the one during, and that subsequent to, operation. So interwoven—interdependent—are the requirements of each that it would be difficult to give to one a distinctive importance over the other.

From the moment the patient comes under the surgeon's hands there begins that thoughtful, deliberate, skillful treatment, that conscientious exercise of sound surgical judgment, that attention to every phase and need of the case through all its periods until the patient passes from under his hands relieved or cured of her affliction. The neglect of the essential in any one period may be fatal in result, however skillful and successful the treatment through other periods.

There can be no distributing the responsibility so as to give more weight to one period than another. The entire freight of responsibility comes to you with the patient, and remains with you only to go out with her.

In every case the essentials of treatment, down to the most minute lines of detail, should be mentally mapped out, and these lines followed by the surgeon with

geometrical precision, and always with a ready and swift reserve at command for any and every masked trouble. If there are brilliant feats in abdominal surgery it is when an unsuspected or concealed enemy is uncovered and dealt with successfully. It is readiness for the trouble that lurks in ambush that goes to make up the successful surgeon. With our advances we will go on with our profitable discussion of essentials, reaching more uniformity of methods through that most determining of all influences—the death rate. I will in brief review some of the essentials, as I consider them from the standpoint of my experiences. Irrigation is an important essential, and should be scrupulously practiced to the point of great thoroughness in all cases where pus, clot and debris are found. The escape of the contents of any form of cystoma into the peritoneal cavity—the evacuated contents of dermoid tumors, pus tubes or ovarian abscesses, or of any variety of pelvic growths—should be followed by a thorough washing toilet. With each repeated experience I grow more confirmed in the conviction that drainage is an important step in assuring speedy recovery.

My experience with great numbers of angry troubles strengthens my confidence in drainage; of course, it is important to know when and how to use it. The man who tells us that he cannot remove the ovaries entire also tells that drainage is excessively used. Another tells us that drainage is harmful, and that he never operates for pus.

The resources of our surgery have been greatly added to by our improved instruments and materials. A large share of our surgical success is due to good instruments and pure materials, allied with trained, vigilant nursing. The best work is done with few and simple instruments and the best quality of pure material. For tying, silk, pure Chinese twist, the purest and best in quality and the finest and least possible, consistent with safety, should be used. Silk-worm gut, of strong, clean material, gives gratifying results. It is non-irritating, and forms a beautiful angle or box suture for the abdominal walls. There should be three or four to the inch, passed with care, including more aponeuritic and muscular wall than silk and peritonæum. We will speak of the character of the after-treatment without giving it a distinctive importance over any other period of the case. The required after-treatment is simple. Absolute rest, with patient on her back for thirty-six hours or longer, shifting position or restlessness not to be encouraged; clean, painstaking nursing; there should be relays of nurses, that the watch over the patient may be vigilant and unremitting. The nurse should be governed by the same keen sense of responsibility that should govern the surgeon. The patient's bowels should be kept soluble. No opiates at any time. Light and simple diet after the second day.

The triple alliance against good and successful surgery is delay, tinkering, which includes in its arsenal opium, and dirt.

Baron Rothschild's Business Maxims.

The elder Baron Rothschild had the walls of his bank placarded with the following curious maxims:

Carefully examine every detail of your business.

Be prompt in everything.

Take time to consider, and then decide quickly.

Dare to go forward.

Bear troubles patiently.

Be brave in the struggle of life.

Maintain your integrity as a sacred thing.

Never tell business lies.

Make no useless acquaintances.

Never try to appear something more than you are.

Pay your debts promptly.

Learn to risk your money at the right moment.

Shun strong liquor.

Employ your time well.

Do not reckon upon chance.

Be polite to everybody.

Never be discouraged.

Then work hard and you will be certain to suceeed.

Johnnie—"Tom, your mother says you are taking Cod Liver Oil. "What are you taking it for?"

Tom—"Medicine! did you think I was taking it for fun?"

COMMUNICATIONS.

THE ADMINISTRATION OF ETHER FOR SURGICAL OPERATIONS.

ELLISTON J. MORRIS, A. M., M. D., Philadelphia, Pa.

The death of Col. Shepard, during the administration of ether must awaken the profession to a renewed sense of the responsibility assumed in the use of any anæsthetic for any operation, no matter how slight. It is not the writer's purpose to criticise in any way the administrator of this unfortunate case, but simply to lay down a few simple rules for ether administration which have stood him in good stead in times past, and which he hopes may be of use to others.

It may be stated as an axiom that any agent which destroys sensibility is dangerous and should be carefully guarded in its use. The ideal anæsthetic, which will render the operation painless while the brain remains clear, and without danger to the patient, has not been discovered and probably never will be; but we can throw such safeguards around our administration of anæsthetics that the danger is reduced to a minimum. There will always remain a certain proportion of cases in which the death is absolutely unavoidable, and which can hardly be charged to the anæsthetic, though that may be the exciting cause. The writer can well remember an instance that occured to him. He had been asked to administer ether for an abdominal section; the operation was delayed a quarter of an hour for the arrival of the family physician, and in that time the patient had an overwhelming apoplexy and died. No ether had been given, but, had the death occurred during its administration, no one could have said that it was not the cause, directly or indirectly from increased tension on the blood vessels.

The XII Commandment, "Mind your own Business," is the golden rule for the anæsthetizer. He should have eyes, ears and hands for his own work alone, and to expect him to assist the operator in any way beyond giving his undivided attention to the ether, is to subject the patient to danger which should never be incurred. His eyes ought never to go below the patient's chest, and strict attention to the patient's condition, breathing, pulse and the depth of unconciousness will prevent the occurrence of those cases where "the surgeon nearly had a death on the table."

For the administration of ether, nothing is better than a soft towel, folded into a square of about eight inches, or several thicknesses of cheese cloth about the same size. By catching the folded towel at opposite sides it can be held in such a way as to form a cone giving room for the ether to vaporize above the patient's face. It is not the amount of ether poured on the towel, but the amount of ether vapor that the patient inhales that renders him unconscious, and hence the necessity for the space above the face for the vaporization of the ether. I have often seen the anæsthetizer hold the towel close down to the patient's face and pour on ether, wondering why the patient struggled and did not become unconscious, when raising the towel slightly would have remedied the matter. The folded towel has the advantage over every other form of ether inhaler in that it can be had in every house, no matter how humble, and is always clean. A fresh one can be substituted without trouble if the first one becomes soiled by vomit, which cannot be done with any form of inhaler. Usually the patent inhalers used in our hospitals, are foul from the vomit of many patients and it is almost an utter impossibility to keep them clean. The objection to the towel—that it requires more ether than the inhaler—is, to the writer's mind, more apparent than real and should not be allowed to have any weight in the matter.

Patients are often extremely nervous about the ether and dread it much more than the operation itself. If the anæsthetizer will begin its administration gradually, at first allowing plenty of air to reach the patient and thus avoiding the distressing irritation of the larynx, he will find that his patient falls into a quiet sleep, hardly knowing that unconsciousness is coming. A good plan with the very nervous is to place the towel over the face

dry, encouraging the patient to take deep inspirations, adding the ether, at first drop by drop, and increasing the amount as the patient becomes more used to its presence. The towel need not be removed from the face as the ether can be shaken between the folds. A few gentle encouraging words and the assurance that everything is all right, will to a great degree ward off the period of excitement.

The cough in its early stages is distressing and can be avoided by giving a few drops of fresh ether frequently, at the same time ordering the patient to take full inspirations. Vomiting will be avoided by directing that the patient have no breakfast on the morning of the operation or, if some nourishment must be given, it should be very light and consist entirely of liquids.

In spite of every precaution, the stage of excitement may be very severe and the patient require the combined strength of etherizer and nurse to keep him in bed. Particularly is this the case with those who are accustomed to use alcohol to excess, and who, it may be, have taken a "bracer" before the surgeon's arrival. Great care is to be taken in these cases that, on account of their struggles, they do not inhale more ether than is intended and suddenly plunge into the most profound stage. The etherizer should be on his guard to prevent such an occurrence by allowing the patient a little fresh air, and not pushing the ether too hard when the patient shows signs of relaxation.

The surgeon should be entirely prepared for the operation before the administration of ether is begun, so that when the patient is unconscious he can at once be placed on the table and the operation performed. Time is saved and the quantity of ether is lessened. Indeed, where the patient is in bad condition for the operation, he may often be put on the table before the stage of surgical anæsthesia is reached, in order that the surgeon may take advantage of the earliest moment at which he can commence the operation.

All through the operation the color of the patient and his respirations should be carefully observed. The peculiar bluish color, which comes at times, is a sign that the blood is not receiving oxygen enough and fresh air is urgently required. The breathing should be regular and deep as if the patient were asleep; snoring, or blowing breathing, with puffing out of the cheeks, shows that the centres of respiration are being invaded and calls for fresh air. The pulse cannot be taken as a guide as it will only show the amount of shock present.

It should be the aim of the anæsthetizer to keep the patient in a state between coma on the one hand and muscular resistance on the other. This is only to be attained by close watching of the patient. The ordinary rule of testing the degree of anæsthesia by the sensibility of the conjunctiva will answer in most instances, but in others will fail entirely. The same is true of the test by the reaction of the pupils to light. Perhaps the best rule is that mentioned in a recent editorial in THE MEDICAL AND SURGICAL REPORTER on the subject. It consists in noting the effect of the addition of a little fresh ether. If it causes no effort at swallowing on the part of the patient and no irritation of the throat, the anæsthesia is deep enough; but if such irritation be present ether can be given till it ceases. Beyond that point it is not safe to go.

During the administration of ether, and after the operation until the patient regains consciousness, the mouth and fauces should be kept clear of all mucus and vomit. It is hardly necessary to say that false teeth should be removed before the ether is administered. It is better that the anæsthetizer should personally inspect the patient's mouth and satisfy himself that there are no false teeth or other foreign body present. Patients are sometimes singularly averse to having the fact known that they wear false teeth and if simply asked the question will deny their ownership. If they are present they may drop down into the fauces and give annoyance if they do not lead to serious mischief. Snoring may be prevented by placing a thumb under the angle of the patient's jaw on each side and pressing it gently forward. The same can be accomplished by carrying the head into a state of extension. Snoring should, however, be watched as it is a valuable sign that the etherization has been pushed to its safe limit.

As has been said, the anæsthesia should be as short and quick as possible, and time can often be saved by withdrawing the ether as soon as the cutting part of the operation is completed and before the su-

tures are introduced. In the majority of cases the patient will not regain consciousness till the stitches have been placed and tied. The cardinal rule in all operations is the minimum amount of time and the least quantity of ether. Deaths after operation are often charged to shock where it were better to tell the truth and put the fatal blame where it belongs—to drowning with ether.

After the operation the anæsthetizer should remain with the patient till he has regained full consciousness, as cases are on record where the patient has been wheeled into a side room in the hospital, and choked to death because he had not consciousness enough to enable him to eject the accumulated mucus from his mouth. Should vomiting occur the best plan of treatment is to administer hot water as soon as the patient is able to swallow.

It has been the writer's good fortune never to have seen an ether death, but, where a fatal result is threatened, he would lower the patient's head and begin artificial respiration immediately, continuing it for hours if necessary, and administer strychnia hypodermically. Alcohol if given at all should be used with great caution.

It can easily be seen, therefore, that any old woman from the neighborhood cannot be safely trusted with the administration of ether. On no one, not even the operator himself, does the success of the operation depend more than on the anæsthetizer. In one sense he is like the engineer at the throttle. He must "give the machine" a little more steam climbing the grades and an ease-up on the descents, always keeping a lookout ahead for danger signals. When the cautionary signal comes he must be prompt to heed it. Accidents may come. Nature in rare instances may fail to show the red flag, but it will never be an excuse for the engineer controlling the anæsthetic, to plead "I did not see it till too late to apply the brake."

UTERINE FUNGOSITIES.

LEWIS SCHOOLER, Des Moines, Iowa.*

I have chosen this subject on account of its importance and the brief attention given to it by gynecological authors. What I will have to say will have little or no reference to text-book phraseology, and will little more than record my experience, which in no way, probably, differs from that of anyone present to-day.

But most of you may have been forcibly impressed by the length of time the growths have existed in many uteri, by the many diagnoses that have been made, and more than surprised that some of these have been made by men at whose hands we would have expected better things.

If the woman happens to be forty or more years of age, the most frequent diagnosis that I have heard of is change of life. This seems to be the cloak beneath which lurks most of the diseases to which womankind is liable.

That there may be eccentricities of menstruation at or about this period of female life, is more than probable, but that there is a continuous flow of blood for two or three years, to such an extent that the patient is unable to tell when the time for menstruation has arrived, I do not believe. And yet I have heard these stories and seen these cases by the score.

Many of our teachers in our colleges no doubt fail to give due prominence to the strictly practical and sometimes annoyingly common gynecological diseases.

The average medical student of the day is hardly satisfied with a gynecological clinic that does not afford a laparotomy, a hysterectomy or some other capital operation which not one in fifty of them will ever more than witness; and to these wishes too many of our teachers are liable to submit, unconsciously I grant, but nevertheless, it is a yielding that is detrimental to the interests of teacher and student alike, and, if it ended here, there would be little need of reform. But when we consider the suffering entailed upon helpless wo-

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men who have a right to expect relief at our hands, it assumes an entirely different aspect.

Fungosities may be malignant or benign. Most frequently they are of the latter variety, but the former are of sufficiently frequent occurrence that it behooves us to be constantly on our guard, and in some cases long observation and frequent examinations are necessary to determine the exact pathological condition, they being so near the border-line that it is difficult to say on which side they should be ranged.

The histological elements are of such a character that a microscopical examination will, it is true usually determine the character; provided the benign do not, as so frequently occurs in other growths, gradually become transformed into the malignant. The periodical congestions of the sexual organs at least conduces to a continuance of existing departures from normal conditions.

These growths are frequently little more than simple exuberant vegetations, which may or may not be complicated by the existence of polypi. When such complications exist a careless examiner may hastily conclude that the polypus is the only source of the hemorrhage.

In one of my own cases I found a polypus protruding from the cervix more than an inch, but a further investigation revealed vegetative growths in abundance in the uterine cavity. This patient had remained in her room two years, until she started on this trip of less than a hundred miles, and before its completion the hemorrhage became profuse. She had had instilled into her mind the change of life story,and was much surprised to hear that relief could be secured in any other way than by waiting until the change was complete.

In cases where hemorrhage is the symptom complained of, it is well to remember that all cases do not belong in this category. True malignancy, salpingitis, fibromata, and in rare cases perhaps disease of the vaso motor nervous system itself, must be considered as at least a possible cause and should be carefully eliminated, even though the fungosities are easily discovered, because of their possible co-existence.

The removal of one of these causes would have little or no effect upon the other, and the result would, although actually successful as far as it went, so far as complete relief is concerned, be a decided failure.

The prolific cause of these growths is no doubt in a majority of cases, abortions, miscarriages, etc.

That they occur in persons who have never been the subject of either of these conditions no one doubts, though frequently denials are made concerning these conditions that are not based upon the actual condition of affairs. In all cases where menstruation has become profuse and prolonged,I believe it is good practice to insist upon an examination for the purpose of ascertaining the true source of the disease. The hemorrhage is only a symptom and occurs under so many different conditions that its cause should always be diligently sought for. The diagnosis of the patient or that of other physicians, should not be accepted by a careful practitioner.

The diagnosis in these cases is not difficult. A female catheter with an eye near the end, a dull or sharp curette, or even an ear spoon can generally, owing to the relaxed condition of the uterus, be easily introduced into the uterine cavity and one or two of these growths secured.

This object attained, doubt no longer exists and the method to be pursued is plain.

The growths must be destroyed or removed.

Electrolysis has been used and highly recommended for this purpose, and I have no doubt of its efficacy in the hands of competent persons, but with this as with other procedures, the entire surface must be gone over thoroughly or recurrence is certain. For my part I have always been so uniformly successful with the sharp curette that I have never felt the need of other and more cumbersome appliances, none of which, in my estimation, will give as good results.

Curetting a uterine cavity is not a formidable procedure and yet I believe that many regard it too lightly. The introducing of any instrument into the uterine cavity is not devoid of danger under any and all circumstances. If they are strictly aseptic they are not dangerous, but where used without an anæsthetic they are productive of great discomfort in a

large majority of patients, so much so that in nervous or weak persons it is impossible to do thorough work, and where a patient is not under full control the difficulty of performing the operation aseptically is greatly augmented.

Where the vagina and the surrounding parts have been thoroughly and properly asepticised and the operation performed while the patient is under the influence of a general anæsthetic, the cavity can be more completely traversed by the curette, not even a solitary growth need be allowed to remain. The os uteri can be dilated sufficiently to admit of easy access, irrigation resorted to more effectively, and nothing impure need come in contact with either the genital tract, the instrument, or the hands of the operator, and no infection of the tubes or abscesses need follow. Neither will there be the liability to the disagreeable though not dangerous nervous chill which so frequently follows when the operation is performed without anæsthesia.

This phenomenon probably occurs more frequently in the hands of some operators than others. Not long ago a gentleman of large experience who seldom resorts to anæsthesia in these cases, told me that in his cases this operation had been so almost uniformly followed by a chill that he never omitted to warn the patient of its probable occurrence previous to beginning the operation. This has not been my experience though I have witnessed it occasionally.

The benefit derived from this operation in cases where fibroma exist is probably due to the alteration of the nutrition of the parts, as well as to removal of the proliferating cells of the thickened mucous membrane. And in malignant diseases the removal of the dead and decomposing material is always of advantage.

In conclusion I append the following deductions.

1st. Uterine fungosities are of rather frequent occurrence.

2d. Their existence is too frequently overlooked.

3d. When found to exist they should be thoroughly removed while the patient is under the influence of a general anæsthetic.

4th. The sharp curette is as nearly the ideal instrument for this purpose as are the knife and the saw in amputations.

WHAT IS THE SPHERE OF THE NASAL SPRAY?*

T. C. EVANS, M. D., Louisville, Ky.

In a recent discussion on this subject before the American Laryngological Association, Dr. Frank Bosworth, of New York, said: "I have recently removed the air-pump and spray apparatus from my office, and, I believe I have done better work since, than when I placed much dependence upon them." I am not yet ready to adopt such an extreme course as indicated by Dr. Bosworth. I find my spray a convenient method of cleansing the nasal cavities in atrophic rhinitis, in some cases of nasal syphilis and occasionally in the purulent diseases of the accessory sinuses. But, aside from these I do not think sprays accomplish any good; when we take into consideration its indiscriminate use I am convinced that rhinology in general, and our patients in particular, would be much better off if every man doing work in this line would follow the example of Dr. Bosworth. I believe but few men now claim to be able to remove genuine hypertrophies or deviations by local medication, but we all know that it is still a matter of common experience to see patients suffering from purely anatomical obstructions of the nose, who have been astringed, stimulated, disinfected, resolved, oiled and anointed according to the particular fancy of the individual member of the professional gauntlet which he has been so patiently running.

The treatment of diseased nasal mucous membrane by astringent and detergent sprays is such a pleasing, plausible kind of a placebo, has such a wonderfully potent moral effect on the patient, and has associated with it so many hopes and tra-

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ditions that many practitioners still cling to its use, knowing full well that their practice is not borne out either by theory or clinical facts.

For the first year and a-half after I began to devote special attention to diseases of the nasal cavities, I was so situated as to have abundant opportunities for observing the course of these affections under the use of medicated sprays, both in private and dispensary practice. I mention this simply to emphasize the fact that my skepticism in regard to this method of treatment is not born of prejudice, nor is it the product of any pre-conceived theory or notion, but is the legitimate child of disappointment. In spite of all my zeal and faith, after spraying my patients in season and out of season, I was quite forcibly impressed with the fact that all cases of nasal obstruction that came under my observation were almost hopelessly chronic; in fact the only limit set upon the time of treatment was the limit of the patient's perseverance.

Two years ago I read a paper before the Kentucky State Medical Society on "The Indiscriminate Use of the Nasal Spray," in which I endeavored to show the uselessness of this routine method of spraying, as well as to call attention to its pernicious effects, by depriving the patient of the relief that might be afforded by the more rational and radical methods of nasal surgery. In concluding that paper I said, "Taking it all in all, about the most charitable thing that can be said of the nasal spray, is that it rarely does harm, even in the hands of the inexperienced."

Now, after a more extended experience, I wish to reiterate what I then said in regard to the inefficiency of medicated sprays in the treatment of the obstructive diseases of the nose, and to modify that part of my concluding remarks in which I said, "they rarely do harm." All astringents, whether vegetable or mineral, sprayed into the anterior nares act as irritants—the degree of irritation depending upon the strength and temperature of the solution, the condition of the mucous membrane and the idiosyncrasy of the patient, but always acting as irritants in a greater or less degree. The alkaline sprays are perhaps less irritating; still I think it may be safely said that the spraying of any cold, watery solution into the anterior nares is injurious. I mean injurious, of course, in a limited sense, and do not wish to be understood as saying their use is followed by any very grave or marked symptoms, for experience has taught us that the nasal mucous membrane is an exceedingly hardy structure; that it endures the vicissitudes of climate, the vices of civilization as well as the blunders of medical science, if not uncomplainingly at least with a degree of toleration that shows it to be endowed with remarkable powers of resistance.

The use of sprays in cases of acute coryza prolongs and intensifies the attack. In chronic rhinitis they complicate matters by engrafting upon it an acute attack; they always make the patient exceedingly uncomfortable during and for some hours after the treatment. The substitution of vaseline and other petroleum products as a menstruum has done much to mitigate the evils of the aqueous solutions. First, because they are of themselves non-irritating; secondly, because they decrease or nullify the action of the drugs applied to the mucous membrane. But their use is open to serious objections aside from the fact that they are therapeutically inert. They arrest or at least greatly impair the respiratory functions of the nose by forming an impervious coating to its entire mucous surface; they prevent the giving off of heat; they prevent the exhalation of moisture; they prevent the exchange of gases that should normally take place in the nasal cavities—in short, this protecting of the nasal mucous membrane with vaseline, of which we have heard so much, simply means that we abolish the respiratory functions as long or often as we apply protection, so that the inspired air instead of reaching the larynx and lungs saturated with moisture and raised to a temperature approximating that of the blood, is cold and dry, as in buccal respiration. It is admitted even by their most zealous advocates that their prolonged use produces a condition very closely resembling atrophic rhinitis.

The history of nasal therapeutics shows that, sometimes at least, there is much in a name. The older writers laboring under a misapprehension both as to the anatomical structure and the function of the nose, classed all the disorders of this organ under the general name of "Catarrh."

To this name and not to any existing pathological condition, was due the general introduction and great reputation of medicated sprays.

It must be admitted that the spray is a most ingenious apparatus; that it affords a speedy, efficient and cleanly method of applying medicines to the whole of the nasal mucous membranes, but unfortunately for all concerned, we have not in the whole pharmacopœia a single medicine (cocaine perhaps excepted), of which we can say with any degree of assurance, that when so applied it will favorably influence either the course or duration of any of the obstructive diseases of the nasal cavities.

To sum it up briefly, I will say that the sphere of the nasal spray is an exceedingly limited one; that with the medicaments as commonly recommended in text books, its use in most conditions of the nose, is positively detrimental; that there are a few conditions where we find it convenient for cleansing purposes; that it is never curative; that those morbid conditions of the nasal passages which are amenable to treatment, are such as can be corrected or relieved by surgical means.

SOCIETY REPORTS.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Meeting of February 2, 1893.

"Dermoids," by Joseph Price, M. D. (See page 561).

ABSTRACT DISCUSSION.

Dr. W. Reynolds Wilson: In the limited experience that I have had in abdominal work, I find that I agree with Dr. Price in regard to irrigation. I think that it is very important that sterilized water should be used freely. In the Lying-in Charity, I have come to the conclusion that the free use of water, not only in abdominal work, but also in plastic work, is of great advantage. I think, also, that we should exercise great care in keeping the skin clean, so that the needle as it is carried through shall not be contaminated with material from the skin. If the skin is kept clean, if the suture material is kept constantly moistened with the aseptic solution—sterilized water—if the needle is kept free from clotted blood, and if the sponge or pad is frequently used, there will be no results from the introduction of septic material.

In plastic surgery the free use of water is also very important. A small stream of water will keep clots off the surface and keep the wound clean. I think it stands to reason that blood clotting on the surface of the wound, changing from the moist to the dry state, and going through the sticky stage, offers a field upon which any dirty material floating through the air can be deposited.

In the operations that I have done I have kept the surface of the skin perfectly clean. If there has been hemorrhage from an external artery, that should be checked, and if there is any blood on the skin it should be washed off. This is somewhat different from the modern surgical idea of a dry operation. How successful the dry operation is in general surgery I cannot say, but so far as gynecological surgery isconcerned I believe that water is useful.

In regard to the question of sponges or pads, I prefer sponges, because I believe that they can be made aseptic. They hold more water than pads, which can be readily expressed and the surface of the skin kept perfectly clean.

Dr. Howells: I have listened with a great deal of interest to Dr. Price's paper on this important subject of dermoid tumors, particularly from the fact that I have been seeing a good deal of his work for the past week or so, and must confess that I am thoroughly pleased with it. It has been my privilege to have been associated with Mr. Tait as pupil and assistant for the past six months, and I am conversant with his later methods, and I have been especially pleased to find that

Dr. Price is following the same lines as Mr. Tait.

In regard to the frequency of dermoids affecting both ovaries, one case comes to my memory in which both ovaries were removed during pregnancy, and each ovary was the seat of a dermoid tumor. Both ovaries were submitted to careful microscopical examination, and in neither could a trace of ovarian tissue be found. This is a curious fact, and points a moral. In the first place, here we had both ovaries apparently destroyed and still ovulation going on and fecundation taking place. It is a question whether this is not an argument in favor of the conservation of ovarian tissue in operation, and whether Polk's views have not good arguments back of them. If he finds a portion of the ovary in good order he leaves it and resects the diseased portion.

I was also interested in the question of irrigation, which is a very important one. I have seen operators remove neoplasms or ovaries, with escape of purulent fluid into the abdominal cavity, who for some reason have neglected to irrigate or wash out the abdominal cavity. In almost all these cases you get post-operative results of a disastrous and dangerous kind. It is often difficult to say where the dividing line lies. In removing a multilocular cyst some of the gelatinous, colloid material may escape into the abdominal cavity, and in some cases there are no bad consequences, while in others there will be secondary inflammation of the peritonæum. Mr. Tait's method in all doubtful cases is to irrigate, and he uses water freely, almost recklessly. He employs his small-sized trocar for irrigation. With this he thoroughly floods the abdominal cavity, moving the instrument among the viscera and removing all débris, Dr. Charles Martin, who has done most of Mr. Tait's operating for the past few months, says that if he had his way he would irrigate in about every case; that it is advisable to irrigate always. He says that he never knew it to do harm, but always good, and in many cases it decides the question of the life or death of the patient. Mr. Tait is not particular about using sterilized water. The water is simply taken from the tap of the house in which he is operating, and is raised to the proper temperature by the addition of boiling water, but is not properly speaking, sterilized.

The point raised with reference to the carrying of infective matter into the abdominal walls and causing suture abscesses is of importance. Mr. Savage always uses his sutures threaded at each end passes the needles from the peritoneal surface outward, so as to avoid introducing septic material from the skin surface.

Dr. E. W. Cushing, of Boston: I have had some experience with dermoids, and my views coincide with what has been said by Dr. Price and Dr. Howells. Especially is this so with reference to irrigation and drainage, which I use in the great majority of the cases on which I operate, and, as Dr. Martin has been quoted as saying, if I had my wishes I should put a drainage tube in nearly every case. In some operations which are perfectly simple it does not seem justifiable to use a drainage tube, but if a drainage tube were put in in every case some gentlemen would be surprised at the amount of bloody serum that would come from a case of the simplest description, as, for instance, the removal of the tubes and ovaries where there are no adhesions and the pedicle is tied off perfectly clean. In such cases I have seen free discharge. In this way we can appreciate the amount of blood and serum that is liable to come from the stitch holes, for under these circumstances it cannot come from anywhere else. I always feel safer when I use a drainage tube, and I have never seen any trouble from it, but I have lost a number of cases from failure to employ it.

In regard to dermoids, there is one point that I should like to emphasize, and that is that of all tumors they are most prone to degenerative and suppurative changes of the most disastrous character. The abundance of adhesions which these tumors have show old inflammation. We often have to operate when these patients are in bad condition. I may illustrate this by an account of a couple of cases seen within the last month. One was that of a lady who had had repeated attacks of peritonitis, with a history of abscesses forming and opening through the bowel. She had reached the last extremity of pain and suffering. I operated, and found a little suppurating dermoid imbedded in a mass of hardened tissue, communicating low down with the bowel. The bowel was so contracted, as I found by autopsy, that it would not admit the little finger. One ureter was entirely

cut off by cicatricial tissue, and the other seriously interfered with and dilated. I would suggest as a point for discussion the question whether or not the mortality is not greater in cases where the ureters are interfered with and the function of the kidneys cannot go on properly. This woman died with symptoms of obstruction of the bowel and sepsis. The patient was lost because the tumor had not been removed years before, when the first inflammatory symptoms occurred. All operating surgeons agree that in these cases death is not due to the necessities of the condition, but to the fact that the patient has not been operated on in time.

Day before yesterday I operated in a case with a similar history of repeated inflammatory attacks. The patient was in a bad condition, with a temperature of 102° or 103°, a pulse of 130 and signs of pus. There was a mass high up in the abdomen, and the pelvis had large masses in it. When I came to operate, I found difficulty in getting into the abdominal cavity. I finally got into a cavity from which a distinct fæcal odor came. This I washed out, and finally a hair escaped. I then knew what I had, and soon pulled out a "chignon" seven inches in length. The question then came up whether to remove the dermoid or leave it. I decided to remove it, which was done with great difficulty, as it was adherent to the intestines all around and to the abdominal wall. There was no pedicle. It had nothing to do with the ovary or uterus. There were the remains of what I took to be the urachus, and a large obliterated vessel. I then washed out and packed the cavity and went into the pelvis, where I found a dermoid of one ovary and a little tumor of the other ovary. I used a Mikulicz gauze drain and a glass drainage tube. These and other cases illustrate the necessity for early attention as soon as the diagnosis is made, and the danger of waiting until repeated attacks of pelvic inflammation have occurred.

Dr. B. F. Baer: I heartily subscribe to all that Dr. Price has said regarding the necessity for early operation and good surgery, and indorse what has been said about the question of time. Sufficient time should be taken to do the work well, whether five or forty-five minutes are required.

I find myself, however, in opposition to my friends concerning irrigation and drainage. As my experience grows I am more convinced that the drainage tube is employed to an unnecessary and excessive degree, and I wish to express myself emphatically in favor of the belief that irrigation and drainage are not necessary in 5 per cent. of cases, taking all classes of cases, from the most complicated to the simplest. I believe that I meet with as bad cases as it is possible to have, for I operate on every case, just as they come along, and I do not drain in 3 per cent. I have not used a drainage tube in operation for dermoid tumor within the last three years, and among the number several had suppurated. During that period I have not lost a case of dermoid tumor. The last one, operated on two weeks ago, contained two quarts of the ordinary material found in these growths, together with a bunch of hair. There were no adhesions in this case, and the contents were healthy. The incision was quite small, less than two inches, and a little of the fluid got into the abdominal cavity; but I did not irrigate. The cavity was clean after a little sponging, and I did not see, therefore, why I should use irrigation and thus consume a good deal of time unnecessarily—an element about the waste of which so much has just been said by the author of the paper—neither could I see why I should employ a drainage tube in that case. The patient has done perfectly well, and the temperature has not been above 99°.

Now, permit me to relate, by way of illustration, a case showing the opposite extreme. Several months ago a lady, who was thought to be suffering from malignant disease, was sent to me from Kansas. She had been ill for a year, was emaciated, anæmic and cachectic-looking. She suffered greatly from pressure upon bladder and rectum. The pelvis was full of an irregular, hard and semi-fluctuating mass, the lower portion of which extended downward, between the vagina and rectum, almost to the vaginal orifice. I thought the disease would prove to be ovarian papilloma. I found it to be a degenerating dermoid, full of decomposed pus. It was adherent to bowel, uterus and bladder, and had burrowed in every direction under the peritonæum and between the vagina and rectum. I literally had to dig the tumor out piecemeal

from between the latter organs. I irrigated in that case almost constantly during the dissection, and I would advise irrigation in such cases. I did not use drainage, however, even in this case; first, because the wall of the bowel was very thin, and there was the fæcal odor to which Dr. Cushing has referred, I therefore feared the occurrence of a rectal fistula from irritation of the tube. In the second place, I did not use drainage, because I had succeeded in removing all of the tumor, and had left the pelvis clean. I therefore regarded the patient as safer without the tube. The only fæcal fistulæ that have occurred in my practice happened during the period that I employed the drainage tube oftenest. It is a weak argument to say that those who have bad results from the tube do not take care of it properly. But, lastly, *a priori* reasoning and my experience had taught me that drainage could be avoided in this and similar cases. The patient recovered slowly, and went home in five weeks. I believe that she recovered better and safer than if I had used a drainage tube. In a case upon which I operated yesterday, a large quantity of old, disorganized blood poured out while I was separating adhesions, and some of it escaped into the pelvis. This lady had been ill for eighteen years with a tumor fixed behind the uterus—a hæmatomatous condition of the ovaries and Fallopian tubes. The adhesions to the bowel were close. After careful dissection I removed the masses. The contents were not fetid. I did not irrigate, and, of course did not drain. The patient is very well to-day, and I have no doubt she will recover without difficulty.

To still further show that drainage is unnecessary and therefore harmful, I will state that I have had one series of 148 consecutive completed ovariotomies (including the hysterectomies during that period), without a death; and of the last 200 operations there has been a mortality of less than 2 per cent. I think that in these 200 cases I have not used the drainage tube three times.

That Dr. Price's cases have recovered does not prove the necessity for the drainage tube, for my cases have recovered without it. My patients do better without drainage, and I am sure they are safer from complications and annoying sequelæ. I do not have high temperatures. The temperature is usually from 99° to 100°. I do not have septic temperatures.

We attain the ideal in surgery when we get primary healing without suppuration, and this can only be obtained by clean operation and closure of the wound.

Dr. Joseph Price: Dr. Wilson has given us an interesting discussion, and I am delighted that his practice hugs mine so closely. He has great faith in irrigation and water in gynecological and maternity work. There I agree with him heartily. In maternity work I believe in soap and water first, last and all the while. I believe it is as important to cleanse the mucous passages as the skin, and practice it most thoroughly; and as fortifying this subject of irrigation I will say that I have washed over 1200 maternity cases without a death from any cause. I have the longest period without a death of any maternity in the world. That is in keeping the patients two week before delivery and a month afterward. The importance of water in obstetrical and plastic work is as great as in abdominal work.

I agree with Dr. Wilson in regard to clots. Dr. Agnew taught that a clot was a foreign body, and that all bleeding should be sought for and checked.

The importance of skin cleansing is paramount in all surgery. If the skin of the abdomen is thoroughly cleansed for two days before section and your materials are clean, suture abscesses are exceptional. Allusion has been made to the importance of the dry treatment. This works as well in abdominal surgery as in plastic surgery. It is here that we have so much confusion in abdominal work. Dr. Baer has alluded to bad cases, and states that he practices the dry treatment with good results, but he has told us repeatedly that he does not operate on pus cases.

Dr. Baer: You are mistaken in regard to that.

Dr. Price: I can prove it from the records of the Society. The dry operation answers very well in the absence of dirt, filth, and pus, of universal adhesions and cheesy disorganization of surrounding structures. Where, for instance, there is destruction of the cæcum or colon above the cæcum, with removal of the perito-

neal coat and perforation, this disorganization extending from the cæcum to the vermiform, often amputating the appendix, which comes away with the specimen, with the ilium cheesy and disorganized, requiring stitches at one or more points, it is impossible to deal with these cases successfully without irrigation.

The question of speed. The paramount importance of rapid and short operations, the minimizing of every detail, that of anæsthesia, of exposure, of manipulation, is universally admitted. Some one has alluded to hurry. By rapid operation I do not mean hurry. Mr. Tait has repeatedly said that a hurried operation is a dangerous operation. You all remember that years ago, before the days of anæsthesia, operations were rapid; the operators were deft, they were dextrous. It was simply startling to see some of the older surgeons, to use a common expression, wipe off a leg. I saw Dr. Nathan R. Smith amputate my brother's leg in a minute and a half. He did it with one rapid sweep of the knife, and said, "Sam, the saw," and away went the bone. I have never seen such speed in surgery. I believe that I am the author of the expression "chronic surgery." Anæsthesia has encouraged the tendency to chronic surgery. Men hang over their operations. As a distinguished surgeon said to his class, "You will meet with difficulties, but you will have to wriggle through somehow or other." What I mean is that if you pick up a tumor with some friable adhesions, a gentle wipe with the sponge will remove them at once. It is not necessary to hang over it and dance about from point to point in doubt. If it is a clean tumor from a clean cavity, the result is clean, and you close the abdomen with three or four sutures without irrigation or drainage. I criticise hurry as much as does any one else. To stop to discuss points in pathology, histology or anatomy, and to demonstrate the various parts revealed, and thus occupy forty-five or fifty minutes, is a mistake, and not fair to the patient.

Allusion has been made to Dr. Polk. While it is fair to give full credit to this surgeon for his work, it must be remembered that Schroeder made a careful effort to save ovaries, cutting away from them small cystomata and saving a small healthy piece of ovary where healthy tubes remained. His results were good. Dr. Polk has championed this work. Dr. Fullerton has referred to two beautiful cases of this character. The women had suffered greatly, and had had the benefit of prolonged treatment before operation.

Dr. Howells has referred to Mr. Tait's use of his trocar in irrigation. This works very well, but it is of metal, and is a good conductor of heat. If the water is warm it will run the temperature of the metal up at once, and you will feel that it is too warm. Again, it has only the side openings. The rectal bougie, with three sets of perforations and a perforation at the end, makes a good flush and sprinkler. It irrigates laterally and at the extremity. It is surprising in using the trocar and funnel with two feet of hose, the quantity of filth, clot and débris of all sorts that can be washed out after these operations for pus, ruptured tubal pregnancy, suppurating dermoids—a tumor that is prone above all others to suppuration and inflammatory action.

In regard to mortality. Dr. Stewart asks for temperature charts and certificates. I shall not take time to speak about temperature charts, because I hold peculiar views in regard to them. The most beautiful demonstration as to the value of drainage tubes and irrigation can be made with a series of twelve or six cases. Take six dermoids with universal adhesions and six angry pus cases with universal adhesions requiring enucleation of the specimens. Flush and drain these cases and place them by the side of six simple ovariotomies with simple healthy adhesions and no discharge into the peritoneal cavity, and note the difference in the pulse and tongues of the two sets of cases for the following two or three days. The six washed cases will have the lowest temperature, the cleanest tongues, coolest skins and the slowest pulse, and will be bright and cheerful and reading magazines.

Dr. Cushing has alluded to the enormous discharge of serum. You will remember in Keith's book he tells how he used drainage tubes in hysterectomy, and the enormous quantity of blood and serum that escaped from these tubes. In one or two cases he incised the vaginal vault and turned out filthy fluid and clot in cases where he did not drain.

Some one has alluded to the necessity of educating the profession in regard to

the importance of promptitude. That is a part of our business here. It is our duty to educate the profession as to the importance of early surgical interference in cystomata, fibroids and the suppurative forms of pelvic disease. The London, Birmingham and Edinburgh surgeons boast that they have educated the profession to recognize the importance of early interference in cystomata. It is that only, with their surgical refinements, that has reduced the mortality to about *nil*. Dr. Bantock lost his fifty-first case in one series.

A word in regard to diagnosis. This is often alluded to and criticised. It is frequently difficult to say what a certain thing is, but we are usually able to say that it is one of two things, and very rarely are we wrong. That is quite sufficient. A few days ago I removed a huge kidney. I was satisfied before operation that it was either the left kidney or a huge cystoma. It pushed the uterus down and filled the abdomen with the exception of a small space high up on the right. From the history and physical characteristics I could not say that it was not a cystoma, although I felt satisfied that it was a kidney. It proved to be a kidney. The history extended back thirty-one years. The kidney had a stone in it and contained two or more gallons of dirty, muddy fluid.

Dr. Baer reported two cases. He says that one had no adhesions. Well, I scarcely know a surgeon doing abdominal surgery, no matter how enthusiastic he is over drainage, that would think of draining such a case. It is not difficult to define our position. I drain about 50 or 60 per cent. of my cases, but I sometimes do six consecutive operations without a drainage tube. In Kansas City I removed a large fibroid tumor, tore out both tubes and ovaries, but I did not drain, notwithstanding I had divested the pelvis of all peritoneum. It was not the safest or wisest thing to do, but the woman made a nice recovery, although she was a chronic inebriate and a Kansas City courtezan. Another case in the same city—one of tubal and ovarian disease, universal adhesions; a difficult enucleation was followed by irrigation and drainage. A speedy recovery.

THE CLINICAL SOCIETY OF LOUISVILLE.

Meeting of March 7th, 1893.

The President, Dr. I. N. Bloom, in the chair.

WHAT IS THE SPHERE OF THE NASAL SPRAY?

is the title of a paper presented by Dr. T. C. Evans (see page 573).

DISCUSSION.

Dr. Wm. Cheatham: I agree with nearly everything the essayist has said concerning the use of the spray in the treatment of nasal affection. However, I have not been able to dispense with it, especially in home practice, for the reason that I have never found anything to take its place. As a substitute in some cases I use the post-nasal syringe, but find very few patients who can use such an instrument on themselves; again I use the "feeding cup" as a douche for cleansing purposes, after any surgery of the interior of the nose. The objection to the spray in the first place is, that it is not thorough. When used anteriorly it will not reach one-half of the internal surface of the nose. Neither will the douche when used anteriorly. The internal anatomy of the nose is such that no medication used anteriorly reaches thoroughly all parts, so the only thorough way to treat the nose is from behind forwards, whether spray, douche or syringe is used.

In the treatment of laryngitis, for the spray, I have substituted the brush and the syringe; in atrophic rhinitis I scarcely ever use the spray, using the syringe.

Dr. Coomes (Visiting): I have listened with a great deal of interest to Dr. Evans' paper and much of what he has said, I think, is correct. But certainly the atomizer is an instrument that cannot be dispensed with, particularly as Dr. Cheatham says, in home practice. No doubt

there are many of these cases that would be better treated by surgical interference, first washing out carefully with either posterior or anterior nasal syringe, as it is now positively known that there are many diseases affecting the nasal cavities that we cannot cure in any other way; still I cannot agree that the atomizer is simply a placebo, but is an instrument for the purpose of carrying medicated fluids into the nose. The question of whether the nasal cavities can be thoroughly medicated by its use, is, of course, a debatable one. In other words, if the atomizer is properly directed high up into the nares all parts of the tissue will be reached. Of course with the atomizer we cannot flood the nasal cavities as can be done with the ordinary syringe. I do not think the atomizer should be attacked *because it is an atomizer*. There are other instruments used as a means of conveying fluids to the nasal cavities for the purpose of medication, that are no more effective as curative agents. I recognize the fact that there are numerous cases which I treated fifteen years ago, that I thought could be cured with the atomizer, that I know now were not and cannot be cured by this means; I know that nothing short of instrumental interference will ever cure them. There are other cases, of atrophic rhinitis for instance, where the parts are dry, andI know of nothing in the world that will so effectually moisten them as the atomizer. It is also valuable in cases of nose-bleed where there is a constant oozing; we often find cases where we cannot pack the nostril as patients will not tolerate it. I think the atomizer has been unduly assailed and that Bosworth — like a good many other men—will move it back into his office. As Dr. Cheatham says very few patients can use a post-nasal syringe; it is a somewhat dangerous instrument, if used by the patient it is very liable to cause strangulation and unless the pharynx is very well trained it is the exception for the post-nasal syringe to be tolerated.

So far as oil and grease are concerned for use in the nose, it is simply absurd. Of course I can understand where a patient has had an exceedingly sensitive nose a little medicated oil may be of benefit.

Dr. J. M. Ray: I am most freely in accord with the statements made by the essayist. Any one who will study the pathology of nose diseases, I think will come to the conclusion that very little benefit is to be derived from any form of medication by the spray or otherwise. I do not think in the paper Dr. Evans intended to attack the spray *per se*, but any form of medication to the nose, whether spray, syringe, douche, or otherwise. I do not think it is possible to cure any form of nose disease by the spray. It is of value as a cleansing agent but not as a curative agent.

The first paper I had the honor of reading before a Medical Society in this city, was on the subject of Chronic Nasal Diseases, and I made the statement at that time, that what we needed was more throat surgery and less throat doctoring. The longer I live the more I have reason to reiterate that statement. I believe that all cases of obstructive rhinitis require for their relief some form of surgical procedure. I do not think that any case of hypertrophic rhinitis could ever be cured by the spray. The disease is not in the mucous membrane; there is no interference with the secretions from the mucous membrane. The cases of so-called excessive secretion from the nose are simply the result of defective drainage; the secretions accumulate because of hypertrophy, and the secretions liberated all at once appear as an enormous quantity, within a short time.

I simply want to emphasize the fact that I do not believe any form of nasal medication applied in solution ever cured any case of chronic nose disease, whether applied by the atomizer, douche or any thing of the kind. We are often forced to wash out the nose, and as a cleansing agent I know of nothing better than the spray used anteriorly and posteriorly.

With reference to the use of oils in cases of acute rhinitis, I believe there neutral are cases in which oils sometimes act as a soothing application and is agreeable to the patient. Whether it cuts short the attack or not, I am unable to say. I heard a doctor friend remark that he had been suffering for a week from an acute attack of rhinitis, and was advised by a number of professional friends to use various forms of medication, every one of which had done harm. He said that he believed there was no form of local application that would cure a case of acute rhinitis. I am much of the same opinion. Take acute

rhinitis and the more you wash it out, especially with any form of aqueous solution, the more irritable becomes the mucous membrane; the more blood we draw to the part the more sensitive becomes the mucous membrane.

Dr. S. G. Dabney: In the main I agree with what Dr. Evans has said. The spray in my judgment is not of much value as a curative agent, except perhaps, in acute cases where it seems to have a pleasant, soothing effect. I hardly see how we can entirely dispense with the atomizer, not only in atrophic rhinitis but also in the hypertrophic form. Most modern pathologists now claim that hypertrophic rhinitis is due to some form of obstructive process and with each inspiration there is more or less vacuum created just back of the obstruction, the air not passing readily from before backward, being hindered by this obstruction, the partial vacuum so created causing distension of the blood vessels and consequent hypertrophy. Granting that this pathology be true, the treatment indicated would be a removal of the cause, and that means to remove the obstruction. I have very little to say upon the subject as I believe the ground has been very fully covered. The spray has been greatly abused in the past, because relied on as a curative agent; but I do not believe that we will dispense with it entirely in the future, as for cleansing purposes and especially for use at home it is valuable.

Dr. T. P. Satterwhite: I have used the atomizer for some years but have never seen a nasal cavity thoroughly cleansed by any form of spray. I do not suppose the quantity of liquid thrown in the form of spray into the nose, at any time would amount to over a dram or two. Where there is obstruction of the secretions I have always used the douche, but not to have any current to go through the nose with much force. This is the only form with which I have been able to thoroughly cleanse the nasal cavity.

Dr. T. C. Evans: I really feel very much flattered that the gentlemen present have discussed the paper as thoroughly as has been done, and feel gratified that most of them agree with me. Perhaps Dr. Coomes did not properly understand me: I quoted from an article by Dr. Bosworth, but stated that I had not gone to the extreme of having the atomizer removed from my office. I have found the spray very useful for cleansing purposes, but in cases of chronic obstruction of the nose I cannot see that it has done any good, and also I have very serious doubts about acute attacks being cut short. I am sure that they were not shortened any by use of aqueous solutions. I have seen a few cases that seemed to be made more comfortable and slightly benefited by cocaine early in the attack. I mentioned particularly in my paper that the most frequent form of medication to the nose was by application of the spray. What is true of the spray will also apply to other forms of nasal medication. I meant to say that all forms of local medication in the obstructive diseases of the nose is worse than useless.

STRICTURE OF THE TEAR DUCT.

Dr. Wm. Cheatham: I have recently had three cases of stricture of the tear duct which I want to mention: The first case, a young woman, has an obstruction of the tear duct with an abscess of the sac. I want especially to note that in two of the cases after inserting the probe I made an examination of the nose, which I have not done very much until recently, and found that the probe instead of entering the inferior meatus had penetrated along between the mucous membrane and the turbinated bone into the middle meatus; almost no force or violence was used in making this false passage.

Another case, child five years of age. I had treated this patient for stricture of the tear duct for four or five months; she had also been treated by several other physicians without relief. I had examined the nose several times and saw no special obstruction there. The tear duct seemed to be perfectly formed and there was evidently no stricture, still drainage could not be induced. Upon closer examination I discovered that the turbinated bone was pressed too close to the wing of the nose. Taking a strong pair of forceps and inserting them between the side of the nose and the turbinated bone with very little effort I lifted it into proper position and the child has had no further trouble. The whole difficulty was that the turbinated had grown too close to the side of the nose closing the passage. In correcting the position of the bone, I

relieved the child after it had been treated at least eight or nine months.

I want to make a point that it is very important to examine the nose in these cases, especially after you have used the probe, to see whether it has made a false passage as it did in the two cases mentioned, and to see if there is any obstruction in the nose at the lower end of the duct.

DISCUSSION.

Dr. J. M. Ray: It has been my experience that treatment of obstructions of the lachrymal apparatus is as a rule very unsatisfactory. I have tried nearly all forms of treatment that have been devised and the more I treat this trouble the more charry I become about slitting up the puncta and canaliculus. I believe if you slit up the puncta and canaliculus you destroy capillary attraction and do away with the muscular contraction in the circular muscular fibres in the walls of the canalicula and then all drainage that takes place from the eye must be simply gross drainage. I always make a point to examine the nose in these cases; sometimes I have been able to discover the probe in the nose, in others have been unable to find it. I am treating a case now of chronic obstruction in the lachrymo-nasal duct. I can pass a probe through the duct into what I presume is the nose, and the nose will bleed, then looking into the nose I am unable to find the probe. I put cocaine into the nose contracting the turbinated and passed the probe to see if I could feel it—I was able to get the metallic click but could not see it.

I believe if you once start in with these cases, the best thing to do is to open up the duct well into the sac and thus get gross drainage; further, that the best way to do this is to take the lachrymal knife and slit well into the sac, pass it into the nose and cut the stricture, then turn the knife and bring it out to be sure that the stricture is cut; then by continued passage of the probe afterward see that it is kept open. There is no doubt that a great many of these cases are accompanied by nose disease, hypertrophy or thickening of the turbinated; therefore I am in the habit of examining the nose to see if the turbinated is not misplaced in any way. I believe that the few cases that I have seen completely cured have been cured in the manner above described.

Dr. Coomes: I never tell a patient that comes to me with obstruction of the nasal duct that relief can be assured in any given time; it may be in six months, six years, or they may get relief in one month. I think in the majority of these cases the trouble will be found to be stricture, and it is absolutely necessary to secure thorough drainage. Occasionally I have found stricture in two or three places. Like Dr. Ray I have run across obstinate cases where I have failed to get relief notwithstanding the fact that I have slit up the canaliculus, upper and lower, making a free opening. I think this is the best method of treatment, as in that way we get free drainage.

Dr. Wm. Cheatham: My idea in reporting the two cases was to show how easily a false passage might be made, the probe just slipping along between the mucous membrane and inside the turbinated bone, no more force being used than when the probe passes through the natural opening. I believe the latest authorities agree that the tears are not carried by capillary attraction at all. If stricture exists in the nasal duct I think it should be located just as would be done in the urethra. Suppose you have a stricture in the upper part of the tear duct, what is the use of running a knife through into the nose? With a stricture in the upper part of the tear duct I fail to see the occasion for using the knife. It seems to me the proper thing to do would be to use the probe and dilate it thoroughly.

CASE OF SYPHILIS AND TYPHOID FEVER.

Dr. J. M. Krim: Six weeks ago I was called to see a case that has been under treatment for secondary syphilis, having all the symptoms usually present in such cases. I found the patient suffering from an attack of typhoid fever, and four weeks after he came under my observation the eruption existing prior to the development of typhoid fever entirely disappeared. The enlarged glands grew smaller, and he has now in the sixth week, not a symptom of secondary condition existing. He was not under treatment more than ten days for secondary syphilis, and certainly the treatment he received in this time could not have been sufficient to cause disappearance of the syphilitic symptoms. I simply want to

ask the members if they have ever seen a case where the eruption disappeared in this way, and whether it will return again.

DISCUSSION.

Dr. I. N. Bloom: It is not unusual for eruptions to disappear during an acute disease, and as a rule recur after the acute disease has passed off. In this case, however, the eruption had already lasted three weeks, which is as long a time as it usually remains. The most interesting feature is the disappearance of the enlarged glands. I never give medicines in cases of syphilis until the secondary symptoms are manifest. I have known syphilides to disappear in three or four days before medicines given could possibly have had any effect. Then again I have seen papular and pustular syphilides last two, four and five weeks and longer under rigid treatment.

LATERAL DISLOCATION OF ELBOW; CHILD AGED NINE YEARS.

Dr. A. M. Vance: I would like to mention a case of dislocation of the elbow-joint in a girl nine years of age, the second case of lateral dislocation of the elbow I have ever seen where the ulna and radius were carried entirely outside of the humerus, reduction being very difficult. In the first case, which was a patient about the same age, treatment was instituted for fracture and reduction was never brought about. In the last case referred to, I believe the difficulty was from the biceps tendon, it in some way preventing the bones remaining in position after they were replaced by great force. I finally, however, reduced it and the subsequent history is that the whole arm is greatly swollen and the child has suffered a great deal from the traumatism due, undoubtedly, to the efforts at reduction. It is the second case I have ever seen, and I believe that dislocation laterally of the elbow is very rare. There was no fracture in this case.

EPILEPTIC SEIZURES DURING TONSILLOTOMY.

Dr. T. C. Evans: About two weeks ago I operated on a patient, removing a very small piece of tonsil. I applied with a cotton carrier a small quantity of four per cent. solution of cocaine, and proceeded to pull the tonsil up with forceps and clip off the piece with a pair of scissors. The patient did not seem to suffer any pain and there were no symptoms of syncope. Without any evidence of being sick—no whiteness around the mouth—the patient simply dropped out of the chair, and would have fallen on the floor had I not caught him. I laid him on the floor thinking that it was simply a case of fainting. But he had a very distinct convulsion and I proceeded as quickly as possible to get some whiskey; by the time I had gotten the whiskey to him he had regained consciousness.

The point that struck me was that it might be a case of cocaine poisoning. As he recovered so quickly I concluded that this could hardly be the case and inquired into his previous history. I asked him first if he ever had a fainting spell before, and he told me that he had and seemed rather disgusted with himself that he should have gotten sick in my office. I inquired into the history a little further and learned that on one occasion he had been sitting in a chair reading and had one of these attacks, simply falling out of his chair on the floor, so I concluded I had just happened to operate at the time he had one of these epileptic seizures.

DISCUSSION.

Dr. Wm. Cheatham: I think Dr. Evans' conclusion of epileptic seizure is probably the correct one.

Dr. A. M. Vance: My experience is that people often topple out of the operating chair without any cocaine, without anything except a minor surgical procedure. I had a patient faint to-day while the instruments were being prepared for a minor operation. I can recall several cases where fainting has followed the introduction of the hypodermic syringe, there being no history of epilepsy or anything of that kind. However, in Dr. Evans' case the history points very strongly to the fact that it was epilepsy.

Dr. Coomes: I have seen several cases of cocaine poisoning, and my observation is that it sometimes takes a very little cocaine to produce a decided impression.

Dr. A. M. Vance: I believe that a great many of the men who have written upon the subject agree that cocaine, when used about the head, has a much more

powerful effect than anywhere else. My experience is that this product is absorbed more rapidly by the mucous membranes than it will be when applied to cut surfaces. When a tourniquet can be used I believe that cocaine can be employed *ad libitum*, but in other cases it is sometimes attended with considerable danger. I remember using in one case, where operation was done for an epulis on the upper jaw, twenty-nine grains of cocaine in solution—the operation lasting nearly four hours. I believe the reason this patient did not die of cocaine poisoning was that the blood was continually washing it away. This is the greatest amount of cocaine I have ever used in one case. For a number of years I employed a four per cent. solution, but now use a six per cent. In the case referred to where such an enormous quantity was used, the patient absolutely refused to take chloroform, owing to her having been operated upon some years previously in Virginia and nearly dying from the effect of the anæsthetic. She recovered from the operation and now wears artificial teeth, the excrescence never having returned.

I have had no trouble in the use of cocaine since the first few months' experience, invariably giving whiskey beforehand.

CORRESPONDENCE.

PHILADELPHIA—THE MEDICAL AND SURGICAL CENTRE OF AMERICA.

To Editor of Med. and Surg. Reporter:

Sir:—Philadelphia is no less famous for great physicians and surgeons than for men of preeminence in other lines.

New York has been thought by many to equal, and even to excel Philadelphia, and of late, Chicago aspires to share the prominence of these cities as medical centres.

We believe, yes, realize that general surgery here is not one iota inferior to New York or continental surgery. How could Philadelphia lag behind with its incomparable list of illustrious teachers and workers of the past linked to the present by such names as Agnew, Gross, Levis or Meigs? Morton, Deaver, Keen, Roberts, Ashurst, White, and many others in all respects their peers,—these men, inspired by professional zeal and ambition, with natural talent developed by special training and hard labor, maintain general surgery in that high state of excellency not to be surpassed on either continent.

No higher compliment can be paid the graduate in medicine than having merited and obtained a diploma from one of the medical schools of this city. And to-day, in the schools of this city, more than two thousand students are matriculated in medicine alone,—drawn from Canada to South America, and from the Atlantic Ocean to the Pacific.

Philadelphia was among the first to demand a higher standard of medical education, and to establish it by requiring a three, and now a four year's course of study, with terms of seven to nine months each year, and a demonstration of proficiency before graduation.

For *post graduate* work it can be truly said that Philadelphia excels, and, all the year around, physicians are here preparing themselves for greater achievements in general practice and surgery, or in some specialty.

For Post Graduates the Polyclinic was organized and endowed several years ago, and to-day, is an honor and an ornament to the American people. The teachers are men of ability, great experience, wisdom and are the ablest of clinicians.

The physicians of Philadelphia have no "dude airs" or "red tape regalia" to present, to weary your patience or consume your valuable time, nor, do they consume your time by telling of their European trips, or what Sir James Paget, Landolt, Von Bergman, Martin, Sir Lenox Brown, Keith, Bantock, or Tait said about them, or of ovations received. But they prove conclusively that on their foreign trips their time was not occupied

in paying respects to sour krout, limberger and lager beer.

Their manner of teaching is simple and easy, yet grand and beautiful, and you are at once convinced of the profundity of their knowledge, high scientific attainments, remarkable courtesy and gentlemanly bearing. One is always delighted to return here, and when you have remained your allotted time, either in Post Graduate work at Polyclinic or with some specialist, you are loath to leave, and separation from such illustrious lights is indeed painful, whether you are a student in general medicine or surgery, ophthalmology, rhinology, otology, laryngology, genito-urinary, rectal, abdominal and pelvic surgery, or gynecology, dermatology, or obstetrics. You are allowed to examine, make diagnosis, prescribe and treat patients in each respective branch or specialty, and to make the refinements in diagnosis, treatment and technique of operations and minutiæ of handling instruments a part of self. And when each one returns home to his former field or seeks a new location, he goes forth a practical and competent specialist, able to reflect honor and credit to this great medical and surgical centre.

Nothing has been said about laboratory work at the Polyclinic, from the fact that the students at the Polyclinic have been general practitioners five, ten or fifteen years, and are good first class men who have succeeded in general work, been hard students and close observers, and have had, as a rule, previous training in histology, pathology, bacteriology and microscopy. Yet those who desire such instruction can obtain in Philadelphia as good as can be had on the continent. The Polyclinic has already reached a high state of perfection, yet there will be certain additions made that will very materially enhance the work and teachings, and be of inestimable benefit to both faculty and matriculants.

The writer has been more interested in ophthalmology at the Polyclinic than any other branch of medicine. He is proud of the course, and deems it one of earth's greatest blessings to have been a student of so distinguished and able tutors as Professors S. D. Risley, Edward Jackson and George E. de Schweinitz.

This letter would be incomplete if reference was not made to the two illustrious abdominal and pelvic surgeons of Philadelphia, viz: Drs. Joseph and Mordacai Price, who have a private hospital at 241 N. 18th Street with capacity for ninety patients. This institution has averaged forty to forty-five private operations for each of the months that I know of. Here the writer has seen the most difficult, painstaking and heroic abdominal and pelvic operations done in surgery. The courage, dexterity, rare judgment, precision, skill and almost mathematical certainty of recovery of patients is simply marvelous. These surgeons do what nature cannot do, they remove the offending growths or lesions under aseptic precautions, quick surgery, short anæsthesia, perfect hemostasis, minimum of shock, practical nursing reduced to a science, and perfect rest. Nurses are so well trained that they know the various steps of different operations, can hand the needed instrument at the right time to the operator without a word from him, the expressions of his face indicating the steps anticipated by the nurse. Besides the nurses can handle anæsthetics, hemostats and drainage tubes with such a skillful degree of accuracy, that some who claim to be abdominal surgeons might draw lessons from them. Dr. Price does not irrigate and use drainage in many cases because it is not necessary. But there are cases where irrigation and drainage are demanded and highly essential. These surgeons have the bulk of their work in cases demanding heroic surgery as a conservative, *dernier*, radical and thorough life-saving measure. Many patients have been previously dallied and tinkered with by the minor gynecologists, through office *rapid dilatation* and *curetting*. From the number of physicians of the North, South and West, as well as from the city, who daily attend Dr. Price's operations, one is convinced that the Prices are in themselves a whole faculty in abdominal and pelvic surgery.

It is with much pleasure that the writer refers to some brilliant surgical operations done at the Medico-Chirurgical Hospital by Dr. Ashton, whose courtesy, hospitality and exceeding kindness have made a grateful and lasting impression. He is a rapid operator and in him chronic surgery is not known or recognized by the spectator.

Another great advantage in taking post-

graduate courses here, is the various medical, surgical and pathological societies to which you are invited several nights in each week. Here you see, meet and listen to other professional giants not members of the faculties of the different schools.

Any physician contemplating a general or special course should keep his eye on Philadelphia and the Polyclinic. Physicians and surgeons here treat strangers and visiting physicians and students of the Polyclinic with the most marked courtesy and consideration, invite them to see their operations and clinics, and make life as pleasant as a sojourner could wish. Physicians should consider it quite a favor and a compliment to get to visit and witness the operations in abdominal and pelvic surgery, and demonstrations of pathological specimens after operation, at Dr. Price's private hospital. Dr. Price always demonstrates the pathological specimens, showing the need and necessity of a surgical operation. Having been associated with Dr. Price three months, one month in 1889 and two months this last winter, seeing his work daily, I am prepared to state that he operates for pathological lesions and finds them. His surgery is conservative for nothing else would save the patient. His conservatism is doing the right thing at the right time, the best that could be done for each patient.

Two operations at the Polyclinic for larcerated perineum, and two for the same at the Gynæcean Hospital, were decided successes.

Dr. J. M. Baldy proved his skill in two intra-vaginal hysterectomies in which cancer had begun to develop in the body of the uterus but could not be detected, demonstrating the surgical meaning of a uterine leucorrhœa or metro-staxis after the menopause, as pathognomonic of cancer, and early surgical interference and removal of the offending organ before constitutional infection.

One of the boldest and most rapid abdominal operators is Dr. Baer. He showed the writer many courtesies, is an instructive lecturer, a good diagnostician, claims to not use the drainage tube more than two or three times in two hundred cases of cœliotomy, resorts to the dry treatment of the peritoneal cavity. He removed a fibroid of tube and ovary, with numerous strong adhesions, without drainage or irrigation, with an after temperature 100° and pulse 96, and, anticipating hemorrhage several hours later, reopened abdomen. He teaches gynecology and physical diagnosis of pelvic organs with force and precision. Dr. Baer demonstrated his operation of tying or shortening the broad and round ligaments for prolapsed uteri through abdominal section. He operated on a woman with prolapsus uteri, tied off the broad ligaments, thereby shortening them, also the round ligaments; replaced the womb in its normal position, and ten days later did operations for cystocele and rectocele, getting primary union and giving a new appearance to the genitalia,—that of a virgin ostium. Dr. Baer also demonstrated several times his method of intra-peritoneal hysterectomy and tying of the uterine arteries, dispensing with the *serre noud*, and coaptating the peritoneal layers (anterior and posterior) over the cervical stump, hermetically closing it, cutting off connection between the peritoneal cavity and vagina.

It is self-evident that students and post-graduates have advantages in Philadelphia not to be had in other large cities.

While Polyclinic schools and hospitals are of great benefit to the profession and to humanity, there should be restrictions around every one, viz: The matriculant should be endorsed by his county, district or state society, and should present his credentials before matriculating, take an oath that he is not going into quackery after completing his course, and register in the general or special branch he desires to devote his time and attention to. No man, physician even, with many years general practice can be a specialist in three or six weeks without long previous study, training and experience in some special line. Yet there are physicians who have seen one or two operations in abdominal surgery by some skilled surgeon, an adenoid vegetation removed from vault, or enucleation or cataract extraction, and returning home, have announced in the weekly or daily newspapers their cards—"Specialists in Gynecology, diseases of nose and throat and eye." The great evil likely to attend Polyclinic teaching is the manufacture of charletans. Therefore let every post-graduate Medical and Surgical College have restrictions to suppress and prevent quackery, and not aid in their development.

J. G. Carpenter, M. D.

Stanford, Ky.

THE MEDICAL AND SURGICAL REPORTER

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SATURDAY, APRIL 15TH, 1893.

EDITORIAL.

SUPPORT THE MEDICAL EXAMINERS' BILL.

Every physician who appreciates the danger to the community of allowing ignorant persons to practice medicine, should give earnest support to the Medical Bill now before the Senate of Pennsylvania. Efficient assistance will be given the Legislative Committee of the State Medical Society, if every reader of THE REPORTER will at once write to the Senator representing his district, asking his vote for the bill. The bill originally introduced in the Legislature has been modified so that it more nearly resembles the New York law than it did at first.

The well-known surgeon of Brooklyn, Dr. L. S. Pilcher, stated in his recent presidential address at Albany, that the New York law was exceedingly satisfactory; and Dr. D. B. St. John Roosa, President of the New York Academy of Medicine, gives similar testimony as to the efficiency of this law in elevating professional standards of education and protecting the people from ignorant and dangerous practitioners.

The present Pennsylvania bill, as stated in THE REPORTER last week, provides for a Medical Council which shall supervise the three Medical Examining Boards, and see that the three boards keep to the same standard of proficiency in their examinations.

The determination of how much the applicant for license to practice knows of general educational topics, before being allowed to appear before the examining board, and the question of the validity of his medical diploma, and of his moral fitness for the profession rests with the Medical Council. In fact the bill creates what is practically a single licensing board with three examining committees under its jurisdiction. This is a little more cumbersome than the original method, but will, it is believed, be equally good. The Legislative Committee modified the original bill of the State Society after holding a conference with the officers of the State Society and representative members of the profession connected with the

great medical schools of the state.

Pennsylvania has so long been without a proper medical law that THE REPORTER earnestly urges all to give aid in securing the passage of the present Boyer bill. Many may feel that they would like to criticise individual features of the proposed act; but it must be remembered that our first duty is to protect the public from dangerous charletans and ignorant doctors. The low grade schools graduate many such, and now Pennsylvania is one of the states in which they can with ease settle to practice. No one should oppose the proposed law except those who believe in supporting two years' medical colleges and low grade three years' schools.

Cleared Up.

It was plain from the start that the reporters would have to be called in to clear up the mystery attending Col. Shepard's death. Two physicians of the highest standing had told what they, on the spot, had made out to be the causes of death, but their official bulletin was miserably deficient in those details which the public is entitled to have in all such cases. It was only what we expected, therefore, when we found Sunday's papers, almost without exception, trying to gratify that "element in human nature," as the Boston *Herald* calls it, which insists on a daily mess of scandal and brutality. One paper, properly resenting Dr. McBurney's unwillingness to give it a spicy column, made up a "statement" of its own and put it into his mouth. Another charged him with "criminal negligence," on the strength of private information derived from a "friend of the family," and we understand that the said friend will soon be called upon to foot the bill for damages which a suit for libel will undoubtedly entail upon the paper that fondly relied upon his word. Still another reporter had a theory that Dr. McBurney was "unnerved" by a "run of bad luck" he had been having with his cases lately, and so could not be expected to act, in an emergency, with the intelligence and promptness which this reporter always has at command in his critical operations. It is highly fortunate that the physicians thus barked at are of such established character and skill. Inexperienced men in their situation would be hounded to professional ruin by the improvised doctors who would start up in every well-regulated newspaper office to show them how they had criminally blundered. As it is, we imagine that the hounding will be done by the other side.—*Nation.*

Dr. W. H. Link has observed in his capacity of Pension and Life Insurance Examiner, that hernia is the exception in *fat men.* In a communication to him, Dr. Thos. Manly of New York, confirms the observation and adds that he finds hernia in the female most frequent in fat women.

Brittle Bones.

Mrs. Peter Kelly, of Barboursville, W. Va., the woman whose bones have for some time broken like brittle glass when she moved her muscles, has died suddenly and without apparent pain. Her bones did not pain her when they broke and they knit together readily, but continued to break in new places at every muscular exertion she made.

Mrs. Kelly was in delicate health when the disease first made its appearance. She was just recovering from a long and serious illness. One evening she started downstairs to get a drink of water. When halfway down the bones of her right leg gave way with a peculiar glass-like snap without apparent cause. She called her husband, who carried her back to his bedroom. On the way the bones of her left arm broke in several places with the same peculiar snapping sound she had heard and felt when the first fracture occurred. As she was deposited on the bed the bones of her left leg broke in the same unexplainable manner, and various other bones have broken since.

The reason given by surgeons for the breaking is the deficiency of animal and a superabundance of mineral matter in the bones. The rarity and strangeness of the disease has caused it to be carefully watched by the medical and surgical fraternity. Now that Mrs. Kelly is dead the profession is desirous of holding an autopsy, but the relatives will not have it and will guard the grave.—*Roch. Herald.*

BACTERIOLOGICAL NOTES.

The Bacteria of the Stomach.

Gillespie (*The Journal of Pathology and Bacteriology* I, No. 3, 1893, p. 279) gives the results of his observations on the micro-organisms which he found in specimens of the gastric contents of patients in the Royal Infirmary of Edinburgh, suffering from various ailments. Twenty-four micro-organisms were obtained from different individuals. They were cultivated on various media to ascertain their products, especially with regard to their acid-producing power, and to estimate the effect of hydrochloric acid added to them in a similar manner to that in which it is added in life and, as far as possible, under the same conditions. The organisms obtained were largely those of well known species. The discussion of the different forms is very exhaustive with reference to the points enumerated above, but the more important conclusions deduced from the facts observed, their bearing on the etiology of dyspepsia and the treatment of that group of diseases, is all our present space will permit.

There are: "(1), Many organisms can grow in the human stomach. (2), Many of them can be grown from the contents of the stomach even when they are very acid. (3), From many cases in which organic acids are present in the stomach contents, micro-organisms can be grown which produce the same acid on suitable media. (4), Most of the organisms so grown are very resistant to the action of acids. (5), Hydrochloric acid combined with proteids—proteid-hydrochlorides—has little inhibitory power on organisms, in comparison with free hydrochloric acid. (6), More micro-organisms can be grown from the gastric contents if plates are used and a medium that will not liquefy at the body temperature, than if plates of gelatine be used. Agar-agar is a good vehicle. Yeasts and mucous, however, are best grown in bouillon, being isolated afterwards on gelatine plates. (7), Micro-organisms, if present in quantity, exercise a deleterious effect on both gastric and pancreatic digestion. (8), Pathogenic organisms, which are usually very markedly affected by hydrochloric acid, may pass through the stomach unharmed if the meal with which they are ingested be large and chiefly proteid in character. Provided also, it may be from some fortuitous circumstances, that the supply of hydrochloric acid be somewhat deficient. Under these circumstances most, if not all, the secreted acid combines with the contained proteids. (9), Many non-pathogenic germs do, as a matter of course, pass through the stomach unharmed or only temporarily inhibited. This accords with Macfadyen's observation that the bacteria of the small intestine are constantly changing in numbers and varieties. (10), A small quantity of the free acid, if combined acid be also present, is sufficient to kill or inhibit organisms which could resist a similar quantity of the free acid alone. (11), Although bacteria are of no aid to peptic digestion, and are a hinderance to the pancreatic ferment if in quantity in the duodenum, they still are of great use in the small intestine where they control putrefaction. The organisms which most easily pass the stomach are those which give rise by their growth to the fatty acids, as they are most resistant to the action of the acids. Their products in the small intestine are sufficient to keep the contents of that viscus acid, and they thereby prevent or control putrefaction. In the large intestine the secretion is so alkaline that the putrefactive organisms reassert themselves. (12), Increased putrefaction in the intestinal canal may therefore be due, in some cases, either to insufficient mortality among the putrefactive organisms in the stomach, or to too great mortality among the acid-forming bacteria and yeasts. (13), The lactic acid which appears during the first stages of digestion is due to the action of organisms. (14), The lactic, acetic, butyric, and succinic acids found in gastroectasis are due also to organisms which luxuriate in the too stationary contents.

The Parasitic Origin of Cancer.

The present theory of the nature and cause of cancer is becoming more and more questioned by the results obtained by careful pathologists, who are now advocating the theory of a parasitic protozoa as the specific cause of this form of ma-

lignant tumors. This theory is supported by Sawtscheuko of Germany, Foá of Italy, Saudakewitch of Russia, and Galloway of England, all of whom have demonstrated the presence of the parasite within the carcinomatous cells.

Ruffer (*Britist Med. Jour.*, Nov. 5, 1892) has described the intra-nuclear stage of the parasite. The protozoa first appear in the nucleus of the cancer as small, hard, deeply stained spherical bodies, hardly distinguishable from the nucleolus of the cell. They rarely occur single, but appear in groups of from two to twenty. When filled with these spores the nucleus has a dark appearance and its edges are irregular. When developed more fully, the organism becomes more transparent, and finally a minute nuclear body appears in the center of each parasite and the surrounding capsule becomes distinct. Occasionally one of the parasites increases in size at the apparent expense of the others. They gradually make their way from the nucleus of the cell into the protoplasm. They were most numerous in soft, rapidly growing cancers.

Tubercle Bacilli in the Lymphatic Glands of Non-tuberculous Persons.

Pizzini (*Zeitschrift f. klin. Med.* xxi. p. 329) gives some very interesting results from the inoculations of guinea pigs with portions of the lymphatic (bronchial mesenteric and cervical) glands from forty subjects, in which death had occurred from accident or acute disease other than tuberculosis. The animals were inoculated, under strict antiseptic precautions, either subcutaneously or in the abdominal cavity. The results obtained in thirty cases only were considered reliable. Of these forty-two per cent. were found to contain tubercle bacilli. These experiments are intended to show that under certain circumstances the tubercle bacilli after passing through the epithelum of the air passages are destroyed by the phagocytes; under other circumstances the bacilli give rise to primary tuberculosis of the lymphatics which later may become generalized, and that in some cases the bacilli remain dormant in the lymphatics, especially the bronchial gland, but retaining their virulence. The prevalence of the infection of the bronchial glands being due to the fact that tuberculous infection occurs most frequently in the air-passages, and upon their anatomical situation and physiological relation to the organ of respiration. Tubercle bacilli were not found in the mesenteric glands. In two cases they were demonstrated in the Pacchionian bodies. Too much stress is usually laid upon the mode of infection and not enough upon the resisting power of the tissues. Great importance is attached to the condition of the blood, for if this becomes deteriorated the development of the bacilli present in the glands, is enhanced.

ABSTRACTS.

PETTENKOFER'S PERSONAL EXPERIMENTS WITH THE CHOLERA GERM.*

Since the discovery of the cholera bacillus, which is a constant attendant in the fæces of all cholera patients, it is generally accepted that cholera is due to this organism alone. Pettenkofer, however, has maintained his local predisposition theory, even with regard to this disease. The etiology of cholera is regarded by him as an equation of three unknown quantities, x, y, z; x represents the cholera bacillus; y, something dependent upon locality and time (local predisposition); and z, individual predisposition. Thus, it is quite as necessary to have a predisposed locality as a predisposed individual.

Regarding the human being as the only suitable medium upon whom indisputable and incontestable experiments concerning the causation of cholera can be performed, Pettenkofer experimented upon himself. After neutralizing his gastric juice, he drank, on October 7th, a pure boullion culture of cholera bacilli which had been prepared for him from cultures sent

*Maryland Medical Journal.

from Hamburg. During the time following this he continued to partake of his usual food. His daily observations were as follows :

October 8th, one stool, normal.

October 9th, two mushy stools; two watery stools, gurgling in the intestines.

October 10th, four very watery stools, colorless, continuous gurgling.

October 11th, two very watery stools, gurgling.

October 12th, five very watery stools; temperature 36.7° C.; pulse 86.

October 13th, four, mostly watery, colored stools.

October 14th, one normal stool.

October 15th, two quite normal stools.

From this time on Pettenkofer could not perceive anything abnormal.

On October 17th, Professor Emmerich, after neutralizing his gastric juice, partook of a similar bouillon culture of comma bacilli. His observations were:

October 17th, one normal stool, two mushy and one very watery stool.

October 18th to 19th, three rice-water stools, each of 500 cc.; great thirst.

From October 19th, 6 A. M., to October 20th, evening, fifteen to twenty colorless, watery stools, each of 100 to 200 cc. In the evening of the 19th, 15 drops of tr. of opium were injected into the rectum, and following this, powders of opium and tannin were given.

From the night of October 19th to 20th he had eight, and from the 20th to 21st of October, twelve colorless, watery stools of from 100 to 200 cc.

On October 21st, the first mushy stool was noticed.

From now on the stools were more consistent, and on October 24th, the stools were consistent and well formed.

In the diarrhœic stools of both Pettenkofer and Emmerich cholera bacilli were found in abundant quantities.

From these two experiments made upon the human being, Pettenkofer draws the conclusion that the comma bacillus does not produce a specific poison in the intestine, which is the cause of cholera.

Although we must look enthusiastically upon these wonderful experiments in which Pettenkofer and his colleague offered their lives in the interest of science, we must agree with Frænkel that they prove quite the reverse of what was intended. Pettenkofer points ironically to the fact that Koch and his followers claim that he and Emmerich had really passed through an attack of cholera.

If we examine the cholera cases described by Guttman, in which the only marked symptoms were the diarrhœic stools, we must agree with Frænkel that both Pettenkofer and Emmerich suffered from slight forms of the cholera. From experiments made by Frænkel, it has been shown that cultures of cholera bacilli lose part of their virulence after a time. This, together with the fact that all persons are not equally susceptible to severe attacks of cholera, may explain why Pettenkofer and Emmerich did not suffer from a severe form of the disease.

Since Pettenkofer believes he has proved that the comma bacillus cannot be looked upon as the only cause of cholera, he tries to show what other factors are concerned in the question. He points out, in a series of extensive statistics, that time and local predisposition of the soil are the important factors in influencing an outbreak; that dryness and a low position of the soil water were present during the summer of 1892, in Hamburg; without these the comma bacillus could not have developed. It may be remarked that the same heat, dryness and low state of soil water were general throughout Germany during this period. Why did the Hamburg epidemic not become general in Germany? An important fact has been brought out by Wallichs, viz.: In certain long streets, half belonging to Hamburg and half to Altona, the epidemic was quite general on the Hamburg side, whereas but few cases occurred on the Altona side. As Wallichs points out, nothing but the difference in water supply can account for this fact. Pettenkofer speaks harshly of the many regulations taken during the past year for the prevention of the spread of the comma bacillus. Inasmuch as he admits that the comma bacillus is a factor in the causation of the disease, and inasmuch as we are somewhat helpless in the regulation of the local predisposition of the soil, we cannot see why Pettenkofer objects to measures which prevent the spread of comma bacillus. Certainly the wonderful results of the regulations, which have been general throughout Germany during the past half year, show how, by proper precautions, the spread of this dreadful disease may, at least in part, be prevented.

CURRENT LITERATURE REVIEWED.

THE MONTREAL MEDICAL JOURNAL

for March contains a paper by Dr. George E. Armstrong on

Prostatectomy

in which the author reports four cases with two deaths. He agrees with the following propositions advanced by Mr. A. F. McGill at the meeting of the British Medical Association in 1889:

1. That prostatic enlargements which give rise to urinary symptoms are intravesical and not rectal.
2. That retention is caused by a valve-like action of the intravesical prostate, the urethral orifice being closed more or less completely by the contraction of the bladder on its contents.
3. That in many cases self-catheterism is the only treatment required.
4. That when catheter treatment fails or is unavailable, more radical measures are necessary.
5. That this treatment, to be effectual, should for a time thoroughly drain the bladder and permanently remove the cause of the obstruction.
6. That these two indications are best fulfilled by a supra-pubic rather than a urethral or perineal operation.

The author finds that the supra-pubic entrance gives the operator perfect command over the seat of disease, and also sufficient drainage to the diseased bladder. Hemorrhage is troublesome, and often requires more efficient control than is given by hot water. In three cases, the author packed the bed from which the tumor was shelled out with sticky iodoform gauze. This was very satisfactory. The gauze was removed in twenty-four to forty-eight hours. The packing is in front of the orifices of the ureters and thus does not stop the flow of urine into the bladder. "The mortality attending this operation limits its peformance to the few advanced cases unrelieved by any other method. On the other hand, delay which allows the patient to drift along until general deterioration and changes in the kidneys are so far advanced as to render operative treatment hazardous, is unscientific and unsurgical." The author does not see anything in the operation itself, performed on a man whose other organs are healthy, that should make it fatal; and believes that increased knowledge of the pathology of prostatic disease and its sequellæ, with an improved technique, will enable us to afford relief to a greater number of this class of patients in future than at present.

Dr. J. G. Adami presents a report as to the microscopical appearances of three of the tumors removed by Dr. Armstrong. He regards them as a true hypertrophy of the prostatic tissue, an hypertrophy affecting all the elements of the gland. The condition may be spoken of as a partial or localized hypertrophy of the prostate.

Dr. H. S. Birkett contributes a paper on

Empyema of the Antrum of Highmore,

reporting seven cases. The causation, symptoms and differential diagnosis of the disease are discussed in a most thorough manner. The treatment advocated is as follows: "Having decided which tooth is most likely to be the cause, presuming that dental caries or alveolar periostitis has been the exciting cause, this one is to be extracted—by preference the first molar. Then the drill should be inserted into the posterior socket and made to penetrate the antrum." Should, however, there be a fistulous opening in the gum, this spot should be selected. The cavity is syringed out with an antiseptic solution—preferably bichloride, 1 to 5,000. A drainage tube is then inserted, care being taken that the tube does not extend too far within the antrum to allow the ready escape of the pus. The treatment now consists in washing out the cavity three times daily with an antiseptic solution, preferably Listerine (℥i to ℥i) as there is danger from poisoning with any stronger antiseptic. In chronic cases, where there is a pyogenic membrane, the cavity may be injected with peroxide of hydrogen every other day.

Dr. J. D. Balfour contributes a paper on the "Administration of Chloroform and the Dangers incident thereto," an abstract of which will be found in our next issue.

THE CHICAGO CLINICAL REVIEW FOR MARCH.

In an article on "Brain Surgery," Dr. F. Shaefer reports a case of injury received five years ago and which was followed three years later by convulsions and paralysis. At the operation, a blood clot was found under the dura mater and removed. The patient recovered from the operation and at the time of the communication is reported as improving.

Dr. F. E. Waxham gives his "Impressions of Albuquerque, N. M., as a health resort." As a winter residence it presents many advantages to a large class of tubercular patients and, if the disease is not too far advanced, they may expect much benefit from this extremely dry, rare climate. Feeble and emaciated patients do better in a warmer climate and a lower altitude. The summer temperature at Albuquerque is too high for most patients, though some do well by going to the mountains in the vicinity. He believes that while Colorado offers greater attractions as a summer resort, New Mexico as a winter residence is almost unequalled on account of the extreme dryness, purity and rarity of its atmosphere.

The results of the

Recent Vaginal Oophorectomies

performed by Prof. Henry T. Byford are reported by Dr. J. T. Binkley. Four cases in all are reported.

1, Prolapse of both ovaries with chronic ovaritis.

2, Ovarian abscess and pyosalpinx, left side.

3, Hydrosalpinx, inflammation, hyperplasia of right ovary.

4, Small right ovarian tumor, left ovaritis, double salpingitis, and universal adhesions.

The patients all recovered. "Dr. Byford prefers removing diseased ovaries and tubes, small ovarian tumors, through the vagina, because of the safety of the method and the absence of all trouble from hernia or abdominal fistulæ. All septic changes and retained secretions that would have resulted in general peritonitis have invariably been relieved by discharge through the vaginal incision, either spontaneously or after pushing the finger through the cicatrix, except in one case of pyosalpinx, in which the infected ligature ulcerated into the rectum."

Dr. George W. Newton reports a case of

Multiple Fracture of six bones of the Face and Destruction of the Right Eye.

The injury consisted of a double fracture of the inferior maxilla, a compound comminuted fracture of both nasal bones, a compound comminuted fracture of the superior maxilla, fracture of right malar bone and fracture of right palate bone, also total destruction of right eyeball. Hemorrhage, which was profuse, was controlled by ice and hypodermic injections of ergotine. Hot fomentations were applied for twenty-four hours, at the end of which time the patient was chloroformed and the injured eye enucleated; the fragments of inferior maxilla, wired and a fragment of superior maxilla which was hanging by only a shred of mucous membrane, dissected out. For the first three days the patient was nourished by enemata, after that he could take liquid foods. At the end of six weeks the wire was removed from the inferior maxilla, the union being firm, as it was in the rest of the bones. The face had assumed its natural appearance.

Dr. Charles Warrington Earle discusses "Retroversion and Retroflexion of the Pregnant Uterus." The treatment consists in the avoidance of any great exertion. The urine should be voided with great regularity. If spontaneous replacement does not take place, careful manual reposition must be resorted to with the patient in the knee chest position, the fingers being the best repositor. After the replacement the patient should remain in bed or should wear a pessary till it is certain that the uterus is above the promontory of the sacrum and will remain so.

Dr. Henry M. Lyman reports two cases from the Neurological Clinic of the Rush Medical College. The first is a case of "Convulsive Tic." At sixteen the patient received a scalp wound in the region of the fissure of Rolando from which he was unconscious for two weeks. Four years later the irregular muscular movements commenced. Two years ago the patient was trephined over the point of injury without relief. Dr. Lyman advised suspension of the patient by Sayre's apparatus for a slight increased length of time each day.

The second case is one of "Insular Sclerosis of the Lateral Spinal Columns," coming on after working late at night in a draught. The treatment advised was iodide of potash in small doses, rest and general care, and the galvanic current of a strength of five milliamperes for about three minutes every other day.

The other papers in this month's issue are: "Dislocation of the Crystalline Lens," by Dr. Cassius D. Wescott; "Selections from my Case Book," by Dr. E. J. Gardiner; and "Cerebral Hemorrhage," by Dr. Sanger Brown.

THE CHICAGO MEDICAL RECORDER

for March contains an article by Dr. Edwin J. Kuh.

A Topical Treatment of Bronchitis.

Direct inhalation is applied from a Davidson atomizer producing a very fine continuous spray; the patient being instructed to make as long an expiration as possible, then begin inhaling gently and slowly, and then more rapidly and deeply. The formula which has given the author the best results consists of menthol, one to two per cent.; creosote, one per cent.; camphor, one-half to one per cent.; oil of eucalyptus, two per cent.; oil of pine needles, two per cent., in albolene or benzoinol. The average quantity to be inhaled is two drachms; beyond that the patient gags and the stomach revolts. The author reports good results in old cases of chronic bronchitis, in bronchitis complicating chronic nephritis and diabetes. It is also an excellent palliative in hay fever.

Dr. F. C. Hotz presents the "Report of a case of Thiersch's Skin Grafting on the Conjunctiva." The case reported is one in which the patient lost his eye from flying glass from a broken bottle. The scar tissue, which formed after the removal of the eye, prevented his wearing an artificial one and the operation was performed to enable him to do so. The grafts were cut by passing a razor just below the cuticle, cutting through the tops of the papillæ; they are truly skin shavings, are almost as thin as mucous membrane, but being taken from a firmer texture they have a greater resistance and greater vitality than mucous membrane. The reporter has used the method with success in cases of symblepharon and in cases of large pterygium.

Dr. Christian Fenger reports a number of "Operations on the Kidney," including two nephrectomies for carcinoma with one death. Three cases of nepro-lithotomy, all of which recovered. Two cases of nephrotomy for stone in the kidney, with one death. One case of nephrectomy for traumatic rupture of the kidney; recovery. He also reports one operation for stone in the ureter, with recovery. One exploratory operation for stone in the ureter; recovery. Two cases of stricture of the ureter, one of which was traumatic; both recovered. The reporter also discusses

the operation for pyonephrosis, giving the technique.

Dr. Edmund Andrews discusses the "Management of certain cases of Recurrent Urinary Calculi without cutting or crushing," reporting a number of cases in which he succeeded in pumping the stone out of the bladder. He also describes a "New Clamp for bony union of Fractured Patella" which is a modification of the principle of the well known Malgaigne hooks. A cut of the instrument is given in the paper.

Dr. Charles Warrington Earle contributes a paper on "Mediastinal Abscess and Tubercular Bronchinal Glands," reporting cases.

The papers in this issue were read in the Chicago Medical and Chicago Pathological Societies.

PERISCOPE.

MEDICINE.

Quinine in the Treatment of Wounds.

Dr. Isidor Alfoldi (*Kozegeszegugyi Kalauz.*) recommends quinine for the treatment of wounds. The first case in which he employed it was one where in consequence of severe contusion of the foot, amputation of the leg had become necessary, and where, in spite of the most rigid antisepsis, several days after the operation the edges of the wounds and the parts surrounding them had been colored blue and showed no tendency toward healing, the flaps themselves becoming cold. This condition grew rapidly worse, and despite the usual antiseptic measures, gangrene appeared imminent. By the applidation of cotton wads saturated with a one per cent. solution of quinine sulphate, gangrene was prevented, the wound daily assumed a more healthy appearance, and healed in the normal time.

The second case was in a child of six months who had a cavernous new-growth in in the right arm, which Dr. Alfoldi treated at his clinic with Vienna caustic. A week later the wound was gangrenous in consequence of negligence, and extensive erysipelas was present. After washing the wound with a one per cent. solution of quinine sulphate and applying the dressing of gauze and cotton impregnated with the same solution, the wound became perfectly clean and presented red granulations, the erysipelas disappeared, and a rapid cure survened.

The third case was one with numerous soft chancres about the glans, which were dusted every other day with quinine sulphate. After four dressings the ulcers were healed.

The author states that infected wounds showing no tendency toward cure deterge and heal more rapidly under the influence of quinine than by the application of corrosive sublimate or of iodoform; and that simple wounds heal strikingly fast.—*Merck's Bull.*

Salicylate of Bismuth in Infantile Diarrhœs.

Mikhnevitch (*Med. Obozrenie*, No. 6, 1892), having tried the salicylate of bismuth in fifty cases of diarrhœa in infants under two years of age, reports that of the number only two died (a boy eight months with pelvic suppuration consecutive to intractable colitis, and an infant of five months, born prematurely and exceedingly sickly at its birth. The following formula is recommended:

℞ Bismuthi salicylici.....gr. xxiv.
Gummi arabici.....5 j
Sacch. albi.....5 jss.
Terendo adde aq. dest.....ʒ ij
Fiat lac, tum adde aq. dest...ʒ iv.
M. D. S.

The bottle to be kept in cold water or ice, and to be shaken well before use. One or two teaspoonfuls to be given from three to six times daily. Each teaspoonful of the mixture contains about half a grain of the salicylate, which constitutes a normal dose (three or four times daily) for an infant of from six to eight months old. In cases of offensive diarrhœa the administration should be preceded by a dose of castor oil. The bismuth salt should be given regularly until the diarrhœa has completely subsided. It must be kept in mind, however, that in large doses the remedy is apt to induce perspiration with consecutive weakness (especially in exhausted children), hence a corresponding reduction of the dose may be necessary. In acute cases the remedy is useless, but in all of a week's standing or longer its effects are said to be excellent.

SURGERY.

Bow-Legs.

Dr. A. E. Hoadley (*Chicago Clinical Review*) says:

Rugged and rapid development produce bow-legs, and more commonly straight legs, which will uniformly correct themselves without assistance.

The severe forms of ordinary bow-legs, especially where the joint itself partakes largely of the deformity, will require treatment by restraining and corrective force.

The prognosis, in the ordinary forms of bow-legs, is very favorable under the influence of mild corrective force.

The prognosis in rachitic bow-legs is unfavorable. When this condition is of long standing it is practically not amenable to treatment by gradual corrective force, and therefore should be corrected by osteotomy. The rachitis itself requires the most careful

and comprehensive constitutional treatment.

The anatomical arrangement of muscles favors the spontaneous correction of bow-legs, and the biceps is the most important in the exercise of this corrective force. In the opposite condition, or knock-knee, there are no opposing muscles that can act as correctors of the deformity.

The strong contrast between these two conditions, bow-legs with a tendency to recovery, and knock-knee with a tendency to progression and difficulty of correction, is due entirely to the anatomical arrangement of the muscles.

GYNECOLOGY.

Rapid Method of Locating Intestinal Wounds.

Dr. D. D. Crowley (*Occidental Medical Times*) says:

Large fæcal accumulations materially hinder the insufflation of hydrogen gas, usually increasing the time required to pass the ileo-cæcal valve by five to six minutes.

Fæcal accumulations also obstruct the point of the rectal tube, and may at times prevent the gas passing into the rectum.

Insufflation of hydrogen gas does not materially hinder the suturing of the abdominal wall, nor does it force the intestines from the abdomen during insufflation, as it is often stated.

The carbolized solution employed answers two purposes; by removing blood and other extraneous matters, and by acting as an element through which the escape of gas from an intestinal wound becomes visible.

The use of gas alone reduces the time required in exploring the abdomen for intestinal wounds at least 75 per cent., but with the addition of an antiseptic solution the time can be reduced 90 per cent.

With gas and fluid no difficulty is experienced in ascertaining the presence of the smallest wound in the intestine.

A wound $\frac{1}{3}$ to 1 inch or more in length, in any part of stomach, may be located by these means.

A small wound, $\frac{1}{4}$ inch in length, on the posterior surface, or a small valvular puncture in any part of the stomach, is not always readily located by the use of gas and fluid; but these two exceptions, as I have ascertained, usually do not require surgical interference.—*American Lancet.*

Ectopic Gestation.

Dr. James W. Ross, of Toronto, (*American Gynecological Journal*) writes an interesting article on the above condition. He sums up the causes of extra uterine gestation as follows:

1. Malformation of the internal genital organs.
2. Occlusion of the inner end of the Fallopian tube.
3. Pressure on the tube or obstruction of its lumen by fibroid tumors.
4. Gonorrhœal or other salpingitis.

The symptoms of disease before rupture are:

History of Labors.—In most cases there had been a considerable period of sterility preceding the ectopic gestation;

History of Tubal or Pelvic Disease.—This will usually have been present. The history often shows that the patient had a bad miscarriage some time before, or a supposed recent miscarriage.

Menstrual History.—May, perhaps, have missed a month, or a period has been anticipated, scanty or delayed a day or two. Then irregular discharges of blood have begun, and sometimes been so severe and dangerous to the patient as to require plugging. They are like the pains of a miscarriage, and sometimes these hemorrhages will come on two, three, or four times in a month. In some they will be almost continuous.

This discharge, with the passage of decidua, makes the patient assert positively that she has had a miscarriage.

Pain.—Some have no pain. Others have dysuria, or frequent desire to micturate, a desire to strain, a feeling as if something were coming down. Pains may be paroxysmal, like labor pains, or may be accompanied by a gush or a discharge of blood.

Breasts.—Some have shooting pains in the breasts with a hot feeling. Breasts may tinge and feel full. Milk may be present.

Nausea.—Evidently not a reliable symptom.

Examination.—Vagina may be of a purple color. The cervix, perhaps, is soft and patulous. Uterus may be pressed forwards or backwards, to one side or the other. An irregular swelling that feels knotty and boggy will be found in its neighborhood. Some say the tumor may pulsate. No placental souffle can be made out at this early period, even with the stethoscope in the vagina.

ARMY AND NAVY.

U. S. Army, from April 2, 1893, to April 8, 1893.

By direction of the Secretary of War Major Augustus A. De Loffre, surgeon, will be relieved from duty at Columbus Barracks, Ohio, upon receipt of this order, and will report in person to commanding officer, Fort Logan, Colorado, for duty as post surgeon at that Station.

The leave of absence granted Captain Edwin F. Gardner, Assistant Surgeon U. S. Army, for seven days, is extended twenty-three days.

Excursions to Washington.

Personally conducted tours to Washington have been arranged via Royal Blue Line, to be run at frequent intervals from New York and Philadelphia to Washington. The next excursion will be on April 6th. For programme, describing these tours, write to Thos. Cook & Son, Agents B. & O. R. R., 261 and 1225 Broadway, New York, or 332 Washington Street, Boston Mass.

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ORIGINAL ARTICLES.

RUSHTON MOLLOY, M. D., Caledonia, Miss.
Femoral Aneurism—Treatment by Compression . 597

CLINICAL LECTURES.

W. H. LINK, M. D., Petersburgh, Ind.
Notes on a Case of Extra-Uterine Pregnancy in the Practice of Dr. Mordecai Price 600

COMMUNICATIONS.

FRANK P. BUTLER, M. D., Marshalltown, Ia.
Two Cases of Malignant Diphtheria, ... 602

JAS. E. PRYOR, M. D., Logansport, Ind.
The Treatment of Hemorrhoids. 603

SOCIETY REPORTS.

The Clinical Society of Louisville. 604

The Western Association of Obstetricians and Gynecologists. 610

EDITORIAL

"Much Ado About Nothing." 616

TRANSLATIONS 620

BACTERIOLOGICAL NOTES. 623

ABSTRACTS 624

CURRENT LITERATURE REVIEWED . . . 630

SELECTED FORMULÆ. 634

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THE
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ORIGINAL ARTICLES.

FEMORAL ANEURISM — TREATMENT BY COMPRESSION.

RUSHTON MOLLOY, M. D., Caledonia, Miss.

The treatment of aneurism by compression originated with Bourdelot at the close of the seventeenth century, afterwards used by Geuga, Heister and others. These surgeons made pressure directly upon the sac, and related several cures effected in this way. But this practice soon fell into disuse because of the danger and uncertainty in its results from irritating and inflaming the sac. The French surgeons modified the pressure plan by laying open the sac, clearing out its contents, and applying the pressure directly to the opening into the vessel. In 1785, John Hunter substituted for these barbarous modes of treatment, the Hunterian Operation, one of the greatest advances of modern surgery ever made by the single act of one man.

This operation was the simpler and more scientific procedure of ligating the artery at some distant and healthy portion of the body above the sac. For more than half a century this operation was almost the only method by which this disease was treated when situated upon an artery applicable to the operation. In 1810, Pellatan and Dubois applied pressure to the artery above the sac, instead of to the aneurism itself, and various attempts were made to methodically treat aneurisms in this way.

In 1841-'42, the Dublin surgeons introduced the practice of compression in the treatment of aneurism into modern surgery, and demonstrated by pathological investigation and surgical argument that the coagulation of the blood by which an aneurismal sac is occluded, may take place as readily when the current of blood from the artery into the sac is interrupted by compression as when it is arrested by ligation of the vessel. They established this great fact, that whenever the artery could be reached so as to admit of compression between the sac and heart, the tying of the vessel was no longer the only hope of cure in this formidable disease. When the practice was first used by the profession, the theory was erroneous; it was supposed that the whole flow of blood through the artery should be arrested and inflammation of the vessel at the point compressed should be secured and that the consolidation of the aneurism depended upon the obstruction of the vessel subsequent to this inflammation. This led to the employment of too violent and forcible compression, causing the patient great pain and often sloughing of the skin.

It is not necessary that the whole of the circulation through the artery be entirely and permanently arrested, but merely be lessened in force and quantity to such extent as is compatible with the deposition of laminated fibrin. Erichsen reports a case of popliteal aneurism operated upon by Sir Charles Bell, in which the femoral artery was double, only one branch being secured the other continuing to supply the tumor; on examination a week later, the patient having died from erysipelas, the tumor was completely consolidated. In some cases consolidation of the contents of

the sac takes place in a few hours, not by the deposition of fibrin but by the coagulation of the contents of the sac. This sudden coagulation, which was at one time dreaded by surgeons, is now considered to be in the highest degree advantageous, as leading to a more rapid and equally sure cure of the aneurism; but is not to be desired in aneurisms situated upon arteries supplying the brain because of the great danger of syncope, or hemiplegia in consequence of a detached portion of this soft clot forming an embolus in one of the cerebral arteries.

Usually the interior of an aneurismal sac contains a quantity of colorless fibrin, arranged in concentric laminæ of moderate thickness. These laminæ of fibrin are of a pale-buff color. The more external were deposited first and occasionally are found to have undergone a kind of fatty degeneration. As the center of the sac is approached they become softer and more colored and in the central portions dark masses of coagulum are often met with. This laminated fibrin, the active clot as termed by Broca, is deposited only when the blood is in motion in the sac of the aneurism, and is usually if not always found in aneurisms of the saculated variety, because the movement of the blood is necessarily much slower in this variety than in the fusiform, in which the flow of blood is rapid and adhesion of the corpuscles take place with difficulty. The color of the clot varies in different cases; the more rapid the flow the fewer red corpuscles will be found in the coagulum, the slower the flow the darker the clot will be. Complete arrest of the circulation leads to the formation of an ordinary dark clot exactly similar to one formed outside of the body.

This laminated fibrin, which we should always hope to have deposited, is formed in the same way as a colorless thrombus in a diseased vein; the first step in the process being the adhesion of the white corpuslces to the walls of the sac; by the disintegration of these white corpuscles the fibrin ferment is produced which acts upon fibrinogen and fibrinoplastin to form the fibrin in the delicate meshes of which all the elements of the blood are collected, thus forming the clot.

Of the great value of compression in the treatment of aneurism, there can be no doubt, especially when the tumor is situated in the arteries of the lower extremity. Aneurisms occurring in the vicinity of the trunk are not so applicable to the treatment by compression as those of the extremities, although an aneurism in the groin has been cured by compression of the abdominal aorta. The great value of compression is that if it fail the ligature may be advantageously applied, with in some cases, a better prospect of success than if compression had not previously been tried, the pressure causing the collateral circulation to enlarge, thus lessening the tendency to gangrene. But in a great many cases the difficulties of the operation of ligation are greatly increased by the thickening and infiltration of the sheath of the vessel subsequent to the treatment by compression. Compression may be safely employed in some cases, as when aneurism is complicated with a heart trouble in which the operation of ligation is not advisable. In some few cases neither ligature nor compression can be adopted and amputation is the sole reliance, while in other cases compression, especially in femoral and popliteal aneurisms, is an infinitely safer method of cure.

The duration of the treatment by compression varies very greatly. In some cases the tumor solidifies in a few hours. In other instances the compression has been used for more than three months before a cure resulted. For instrumental compression, according to some statistics, the longest period was seven weeks. The shortest twenty-four hours; the mean of nineteen cases, in which time was recorded, was twelve days.

For digital compression, the longest period was twenty-one days, the shortest four and one-half hours, the mean of thirteen cases five and one-half days. For combined instrumental and digital compression the longest period was six months, the shortest forty-four hours, the mean of twelve cases forty-four and one-third days.

In regard to the duration of treatment much will depend upon the condition of the patient and on the condition of the tumor. Those circumstances favoring the spontaneous cure of the aneurism will also influence the rapidity of the cure by compression. There are certain conditions of the blood in which it is little disposed to coagulate; in such cases the treatment will necessarily be prolonged.

Any constitutional cause or condition by which the impulse of the heart is lessened and the force of the flow of blood through the sac is diminished, as the occurrence of phthisis, will greatly favor the deposition of laminated fibrin and the consolidation of the tumor. It is very remarkable that phthisis is antagonistic to aneurism and may be explained by the fact that the heart's action is feeble in that disease, and that violent muscular exercise is rarely undertaken by those afflicted with it. The effects upon the tumor treated by compression vary considerably, in some cases it rapidly solidifies; generally, however, this is a more gradual process, the tumor becomes more painful and solid with less pulsation and bruit, and usually there is a feeling of restlessness and uneasiness which is best to quiet by opiates. As the pressure continues the tumor hardens, the anastomozing vessels enlarge, with a feeling of burning pain in the limb and arterial pulsations where usually none are felt. After complete solidification of the aneurism has taken place, the pressure should be continued for forty-eight hours to prevent the occurrence of a relapse.

Report of case: Nathan W., colored, age forty-three years; weight near 200 pounds; about six feet high; a planter by occupation; noticed in January, 1891, a small tumor in left groin about the size of an almond. It gave him but little trouble however, and he continued at his work until February of the following year, (1892) when he began sowing and plowing in oats. I might say that the negroes of the South do but little work during the summer and autumn months, except to gather their crops —which is easy work. This long period of idleness, perhaps, explains the slow growth of this tumor. In February, when he began to plant and prepare his land for cultivation, his left leg became so stiff that he could not climb over a fence and was obliged to quit work and to use a cane in walking. About this time he sought the advice of my father, complaining mostly of stiffness of the limb and inability to perform his duty as a farm laborer. My father examined the tumor and felt plainly the pulsations and heard the bruit. Believing that he had in former years cured a popliteal aneurism by the use of ergot he prescribed it in this case, giving fifteen drops every four or five hours, during the day of the f. e. ergot. After using this remedy for a short while the stiffness of the limb seemed to abate and he was able to walk without the assistance of his cane. In April, owing to a very rapid rise of the river and the overflowing of its banks, he was compelled to make some gigantic efforts, which taxed his strength and endurance to the utmost, to save himself and family from the flood which covered the bottom lands; during this time he was for several hours swimming and wading about in the water and for two days or more he was in a house which was surrounded by water, being much exposed all the while.

After this the tumor began to rapidly enlarge and to pain him a great deal. About this time, May 1st, I was called to see him—my first visit. I found him suffering great pain, his body being convulsed with it, and wet with perspiration. I immediately used morphia and atropia, putting it under the skin, with the success of relieving the pain in a few minutes. I also left morphia to be taken should he have another paroxysm of pain, and continued the use of the ergot. At my next visit, a few days later, I found him in almost the same condition as I did at first, except the pain seemed more like sciatic neuralgia than before. I again used morphia and atropia with the same result as before, and decided to discontinue the use of the ergot and to use the iodide of potassium instead, giving ten-grain doses three times a day. The patient had inherited a scrofulous diathesis from which he had suffered when young. On the sixth of May Dr. J. D. Egger was called in consulation with my father and myself. At this time I was very much in favor of an operation and urged the patient to consent, as I had been doing previously, but he persistently refused. The tumor now occupied the whole of Scarpa's triangle, running up so close to Poupart's ligament that I did not think pressure could be used. The paroxysms of pain seemed to recur regularly, simulating a malarial affection, but quinine did not prevent their return or make them any lighter. The iodide was continued with morphia to relieve pain. At our next consultation, about the middle of May, Dr. Egger proposed to use pressure, and by his ingenuity and workmanship

an instrument was made of a steel spring, shaped like a horse shoe with a wooden block on one end through which worked a thumb-screw with a cork on the end, the cork to direct pressure upon the artery as it crossed the pubes, the only place possible for pressure to be applied. This rude instrument was applied the latter week of May, and seemed to prevent the main inflex of blood. The patient was shown how to manipulate the instrument and directed to keep it on during the day only. The iodide had now produced its physiological effect and was discontinued as he refused to take it longer.

The paroxysms of pain continued to recur during all this time; sometimes two or three paroxysms a day, then other days he was entirely free of them.

After using the instrument about eighteen days he left it off, declaring that he could not use it any longer as it caused him too much pain by irritating the skin. He now consented to an operation and Drs. J. D. Egger and W. S. Green were called, but the aneurism had extended so far as to involve the external iliac, and a successful operation was thought to be impossible. He was again put upon the iodide of potassium with the syrup of the iodide of iron. His leg began to swell and become very œdematous; pitting on pressure to the toes; the superficial veins became enlarged, resembling whip cords, showing plainly the effect of the pressure upon the returning circulation. He was rapidly becoming addicted to the use of morphia, not less than three or four grains giving him any relief. He was unable to turn himself in bed, and complained of dull, aching, throbbing, burning pains. His appetite was poor, and he developed a cough with expectoration simulating phthisis; was greatly emaciated, his leg being as large or larger than his body. I directed him to use cod liver oil, to be alternated with Fellow's syrup of hypophosphites, and to rub his leg several times a day always in the direction of the heart. In this way his cough diminished, appetite returned, the pains in his leg ceased, the morphia was left off entirely and he seemed to be better in every respect. His leg gradually returned to its normal size, the tumor became very hard and diminished in size, the bruit and pulsation ceased entirely, and now he is walking about his farm on crutches, though perfectly able to walk without them. The only impediment to free locomotion is an inability to perform freely the movements of extension and adduction.

CLINICAL LECTURES.

NOTES ON A CASE OF EXTRA-UTERINE PREGNANCY IN THE PRACTICE OF DR. MORDECAI PRICE.

W. H. LINK, M. D., Petersburgh, Ind.

Mrs. J. C., February 6th, missed a period. February 18th, had a severe fall followed by hemorrhage from the uterus, with shreds of membrane discharged. This continued up to the day of operation. Twenty-six days after the fall and the appearance of hemorrhage, she was seized with most agonizing pain in the pelvis attended by a constant desire to stool without the ability to do so. Coincidently there was a marked tendency to faint, while the most startling pallor called attention to her facial expression.

Notwithstanding these emphatic and clearly marked symptoms of tubal pregnancy with rupture, which ought to have been understood and appreciated by any professional man of ordinary intelligence, her medical attendant failed to realize her condition. What his diagnosis was could not be fathomed by the treatment instituted. He curetted the uterus, packed the vagina and sent for a large Hodge pessary which he introduced and left *in situ*. This treatment gave such agonizing pain and increased her apparent illness so much, that her doctor was discharged and another called in. He promptly removed the pessary and stated that he did not understand the case. Dr. Price was

then called to see her and found, upon examination, more positive indications of ruptured tubal pregnancy than are usually known to manifest themselves in such a catastrophe.

Physical examination showed a large boggy mass to the left, extending as high as to the crest of the ilium. The uterus pushed high up under the pubis. Douglas' pouch filled with a fluid, fluctuating boggy mass, and the patient was exceedingly feeble with a pulse of a hundred and thirty.

Section was at once suggested by Dr. Price as the only means of saving life.

On the morning of April 4th, the abdomen was opened by a small incision and a quart of clots turned out of the pelvic cavity. The left tube was quickly brought up and tied off. The rupture had occurred at the fimbriated extremity and the placenta was still within the tube which was distended to the size of a small lemon. On the right side there was a large collection of pus in the tube, which was ruptured in the process of enucleation, flooding the pelvis with pus. There were strong, dense, and multiple adhesions to the bowel and ovary. These adhesions were so numerous and so firm that complete obstruction of the bowels had taken place, and the resulting distension added much to the difficulty of the operation. In breaking up the firm adhesions between the bowel and pus sac the peritoneal covering was torn on three kunckles of intestine. These were repaired with carefully placed Lambert sutures. The bowel was replaced after repeated douching, the abdomen thoroughly flushed, a glass drain inserted, the incision closed with silkworm-gut, a six-tailed bandage applied and the patient put to bed. She rallied promptly and has continued to improve up to date.

There are a number of deductions to be drawn from this case that are worthy of careful consideration.

The array of important symptoms:

She had missed a period. This is a classical symptom that has few exceptions. Pregnancy without the uterus inhibiting menstruation as certainly as if within that viscus, and often leading the patient to the conclusion that she is normally pregnant.

The early period at which rupture occurred. Rupture usually takes place before the twelfth week, but if much earlier than that, is superinduced by some traumatism, over exertion or emotional disturbance. In her case, rupture was precipitated by the fall.

The hemorrhage from the uterus was characteristic of most of such cases. In some cases of ectopic gestation so much blood is lost *per vaginam* that the mistake is made of considering the case one of uterine abortion.

The shreds of membrane passed with the blood are always sufficient to make the wary practitioner alert in looking for other symptoms.

Ectopic pregnancy is attended by a decidua just as certainly as though nature had been stimulated by the presence of the ovum in its normal receptacle. At the time of either rupture or tubal abortion this decidua is cast off and expelled as shreds or membrane, and attended usually with uterine hemorrhage as in abortion following normal pregnancy.

The agonizing pain which at once made itself felt upon rupture, is one of the most certain symptoms found in accidents of this kind. It is caused by the flow of blood and the expulsion of clots and the fœtus or its envelopes into the peritoneal cavity. A circumscribed peritonitis is at once ushered in and nature begins the attempt to fence in the dangerous material.

The constant rectal tenesmus was another finger-board pointing in the same general direction of ruptured ectopic pregnancy. The large accumulation of blood and clots pressed upon the rectal nerves and produced the desire to stool, while the mechanical pressure of the blood upon the rectum produced obstruction of the bowel and prevented any relief from the distressing symptoms.

The tendency to faint, which would no doubt soon have become a real syncope, was due to loss of blood and shock. This is one of the most unmistakable symptoms in such conditions, and is often the first alarming occurrence that leads to a physician being called.

The pallor is characteristic and is due to the loss of blood. It is in degree proportioned to the extent of hemorrhage, and must be considered with the *group* of symptoms both as to diagnosis and prognosis.

The quick, weak, almost thready pulse is a symptom confirmatory of the remain-

der of the group, and is the best indication as to the immediate danger to life of any.

The tinkering treatment she underwent before she fell into the hands of a surgeon, is a fair sample of what ignorance can do when the ass puts on the lion's skin even for a moment. Any man who would curette a uterus with so large a collection of pus as there was on one side of the patient's pelvis, to say nothing of the perfect picture presented by the group of symptoms, must either be very ignorant or very much in need of a conscience. That such ignorance could be found in a great medical center like Philadelphia is quite surprising to an observer, and speaks louder than any words for the passage of some sort of medical legislation that will at least lessen the number of incompetents turned loose upon a suffering public.

COMMUNICATIONS.

TWO CASES OF MALIGNANT DIPHTHERIA.

FRANK P. BUTLER, M. D., Marshalltown, Ia.

In presenting the following cases, I do so because of their peculiarities and complications, because they are somewhat out of the usual line, and because we were so baffled in our efforts to either diagnose or treat them successfully.

Saturday, April 23rd, 1892, Mrs. B. consulted Dr. Hedges in regard to her son, æt. two and a half years. Dr. Hedges found him suffering from a slight indigestion and prescribed accordingly. Sunday, 24th, the boy was suddenly seized with severe convulsions. Dr. Hedges being out of town, another physician was summoned. He found the child unconscious, but after a few moment's work had him sleeping comfortably. The glands of the throat were enlarged, the temperature was evidently rising rapidly, but owing to the child's condition the doctor did not deem it advisable to disturb him with the thermometer, so the exact temperature was not known. At eight p. m. of the same day Dr. Hedges was summoned. He found the glands very much enlarged; temperature 104° F; the lungs in a state of engorgement, showing plainly that he had to deal with acute double pneumonitis; the head was very hot and the face flushed.

Monday, 25th, the glands still enlarged, the lungs evidently crepitant though they were passing into the stage of red hepatization.

Tuesday, 26th, hepatization nearly complete; the breath was very fetid, gangrenous in odor, so much so that the nurse in bending over him to attend to his wants, covered her mouth and nose with her handkerchief. The hepatization became complete at seven o'clock Wednesday morning, when he died.

At 10.30 on the morning of the 27th, (the morning the boy died) I was hastily summoned to see his sister, aged four years. I found her intensely nervous, bordering on convulsions; the throat was very much swollen both inside and out; the inside red and tumified. I looked for a membrane but failed to discover one; temperature 103° F. in axilla only one hour after she was taken sick.

As her case was so much like her brother's (of which we were very much in doubt as to our diagnosis), I proposed a post mortem upon the latter, and at three p. m., eight hours after death, assisted by Drs. Lewis and Hedges, I first made an incision into the trachea, but found nothing abnormal in its entire length. Both lungs were in a state of complete hepatization and upon cutting the surface, there was seen to escape a viscid, turbid, reddish fluid, the substance of the lungs breaking down readily under the pressure of the fingers. Upon opening the pericardium we found a large effusion, probably one pint. A thorough examination of the heart revealed nothing abnormal. The liver was much enlarged from congestion.

In the jejunum and ileum were found five intussusceptions, incomplete and with no inflammatory products. The bowels moved regularly during his sickness.

Peyer's patches were found enlarged and congested, but our efforts to find an ulcer were in vain.

To say that we were disappointed with the result of our examination but mildly expresses it. We all anticipated more evidences of diphtheria, for owing to the child's anæmic appearance, the peculiar gangrenous breath, the sudden illness of the sister in the same manner, the evidences of septic influence in both, we certainly expected to find a membrane, pus or something besides the pneumonia that would account for the above conditions. Of course the pneumonia was in itself sufficient to cause death, but whence the other symptoms?

After the examination of the boy we naturally directed our attention and efforts more especially to the little girl's lungs, and by Saturday the congestion had passed off in resolution. She was bright and cheerful all day Saturday, and we considered her convalescent up to five o'clock p. m. Then she again became restless, the glands again enlarging, but there was no membrane visible, the breath assumed the same odor as the boy's, though not so intense. Sunday she grew constantly worse and, late in the afternoon, there appeared upon the left fauces a patch of diphtheritic membrane about the size of a quarter of a dollar. She gradually failed and died at twelve o'clock Sunday night.

We carefully examined the premises. The cellar was in good condition, dry and clean. The well, about twenty feet from the house, was forty-five feet deep and contained forty feet of water. It had been cleaned out about a year ago. The privy vault is about one hundred feet from the well, and is in poor condition, open and very shallow, the ground sloping from the well to the vault. They have a pet house dog that is healthy. No cats. Had seen but one rat about the house, and that only a few days prior to the children's sickness. The father had some hundred or more chickens, all healthy. They keep their own cow, she is fat and healthy.

The treatment consisted of acetanilid; quinine; digitalis in large doses; listerine, locally and internally; peroxide of hydrogen by atomizer; calomel; iron; and poultices of flax seed meal applied to the chest and throat. The parents have a babe three months old, who up to the present time remains perfectly healthy.

THE TREATMENT OF HEMORRHOIDS.

JAS. E. PRYOR, M. D., Logansport, Ind.

There is no class of diseases more important, falling into the hands of the general practitioner, and for which he should be better prepared to treat than diseases of the rectum.

Within the past few years much practical attention has been devoted to the subject and much has been said and written on this annoying branch of surgical disease.

The frequency with which we are called upon to relieve those suffering from this troublesome affection, behooves us to well acquaint ourselves with the different modes of affording relief. Many of these patients have tried all sorts of "salves" and "pile remedies." The word *operation* is a "bug-bear" to them; they are timid and discouraged, anxious for relief, and finally fall into the hands of the general practitioner, and he who can cure them, not only relieves a troublesome disease, but adds laurels to his fame.

Without going into the pathology, or any lengthy discussion as to the different varieties of hemorrhoids, or the methods of treatment, I shall merely give an outline of the results of my own thought and experience with a method which I have used successfully during the past three years.

Much has been said and written for and against using injections of carbolic acid in hemorrhoids, but I believe by using proper judgment and care almost any hemorrhoid that is a distinct internal growth can be successfully met by injection, and with a minimum of danger. But I would especially caution against using injections of too great strength, or mak-

ing too many injections at one time. It is better that we do too little than too much. A little extra zealousness or misapplied judgment will cause the patient more inconvenience than his ailment.

When a patient comes for relief from this affection, I do not accept his own statements, but make a thorough examination, both digital and ocular, before making a diagnosis. Having found out the size and extent of the trouble I prepare for treatment. I direct him to go home, have the bowels moved freely, and order a large enema of soap-suds and water to be taken just before coming to my office.

Having placed my patient in proper position, I ask him to strain so as to bring the tumors down in view, then with a clean hypodermic syringe I inject one drop or minim of pure carbolic acid in the center of each pile and then replace it. If the patient is in good condition, I do not hesitate to inject two or three at one time, but generally, it is better for him to present himself at proper intervals until all are injected. After injection I have him put to bed for a week. If there is much pain, it is controlled by an anodyne suppository, or small doses of morphine. After two or three days the bowels are opened freely.

The tumors will atrophy or shrivel up. Only in rare and aggravated cases will a tumor require a second injection; usually the pain is of little account, and in course of three weeks the patient will go about as usual.

With proper judgment and care there are but few cases that cannot be entirely cured by this treatment. I have never had any dangerous complication whatever, occur since I began using it.

SOCIETY REPORTS.

THE CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting of March 21st, 1893.

RUPTURE OF PELVIC ABSCESS; SUDDEN DEATH.

Dr. W. H. H. Wathen: On last Tuesday afternoon, I was called in consultation to see a woman, forty-five years of age, a widow, with several grown children, who was suffering with some distension of the abdomen; with pulse 80; temperature normal. Her temperature the day preceding was 102 F.; pulse a little accelerated. The history of the case, as far as I could get it from her physician, was about as follows: The patient had suffered occasionally with pain in the abdomen, not well located, perhaps a year before. She was comparatively well after that until a week before I saw her; then, at the menstrual period, she exposed herself during cold weather, and began to suffer severe pain in the abdomen, mostly in the appendicular region, and diarrhœa began which continued two days. An opiate was given to stop it; then her abdomen began distending and became tympanitic in every part; least tympanites just above the symphysis pubis and on the right side in the region of the appendix, with no special tenderness except in this region. Her bowels ceased to move, I think, about the time I saw her, and she passed very little gas after that; temperature and pulse remaining normal. No vomiting, except of substances which she took into the stomach; no odor from the vomited material and very little discoloration of it. She was a large woman, was unable to get out of bed, and was rather indifferent to everything that surrounded her. An examination *per vaginam*, showed that the uterus and all pelvic structures were matted together, the hardness being more pronounced on the right side. No accurate diagnosis could be made, but the symptoms indicated appendicitis more than anything else. It was decided to operate on her on Friday morning at nine o'clock. Thusday evening at ten o'clock her pulse and temperature were still normal. She said she was feeling better. Friday morning at six o'clock she vomited a little water that was taken during the night;

she fell over as though strangling, and in fifteen minutes was dead. After death she passed a small quantity of fecal matter, having passed no gas for several days preceding this. At the request of the family, a *post mortem* was made on Friday at two o'clock, by Dr. Louis Frank—Dr. Wilson, Dr. Pfeifer and myself being present. I will ask Dr. Frank to exhibit the specimens removed.

DISCUSSION.

Dr. Louis Frank: On Friday we held the *post mortem* as Dr. Wathen states, and when we first opened the abdomen a clear fluid came out. The thorax was not opened as is usually done. In separating the intestines and reaching the large bowel, we found that there were collections of pus which seemed to be saculated by adhesions having formed between the contents of the pelvic cavity and the posterior abdominal walls. We found a rather dark formation in the region of the appendix, looking very much like the appendix; however, it proved not to be such, and searching further we found the appendix which was in a perfectly normal condition; consequently we proceeded to examine further for the cause of the trouble. I present here the appendix which has been opened; it shows no evidence of disease or thickening. After having gotten out all of the intestines and finding nothing to account for the trouble, we proceeded to look into the pelvic cavity and found the uterus in a normal position, as were also the left tube and ovary, but in the region where we should have found the right tube we discovered an abscess sac into which the tube had ruptured. The ovary on this side was found to be cystic. The abscess had ruptured into the pelvic cavity, otherwise there was nothing of particular interest to report. I think it is rather an interesting case, and shows how liable we are to make a mistake in diagnosis from abdominal symptoms; how easily we might diagnosticate appendicitis from the symptoms, when the true nature of the trouble might be pyosalpinx or other pelvic troubles.

Dr. W. H. Wathen: This *post mortem* makes the case a very interesting one; from our general knowledge of symptoms caused by peritonitis and the accumulation of large quantities of pus, we can hardly understand how such destructive conditions could go on without causing more disturbance, especially of the pulse. Because the pulse, we are taught in our text books, is rapid and wiry in peritonitis, and we come to the conclusion, if we have a pulse relatively normal in its frequency and its volume, that we have not much peritonitis. But it teaches the lesson that we cannot rely upon the symptoms in peritonitis, either local or general, to indicate exactly or even approximately the condition of the peritoneal cavity.

You will find one abdomen distended very largely and you will operate, believing that you will come in contact with large quantities of pus in the peritoneal cavity, diffuse or localized; when the abdomen is opened there will be no pus anywhere, and you will find a little band of peritoneal adhesion constricting the bowel at one point, which is removed and the patient recovers. In another case, where the indications of pus and of peritoneal infection are not so well marked, we find either diffuse peritonitis with the cavity filled with pus, or sacculated accumulations of pus. Another thing that this case teaches is the conservatism of the peritoneal cavity in its effort to resist general infection by pathogenous germs. When this pus tube ruptured, instead of causing, as we would naturally suspect from a large accumulation of virulent pus, general peritonitis, nature hurriedly threw out a protective wall against general infection, and even after this accumulation of pus, as much as a quart or half gallon, it was cut off from the general peritoneal cavity. The peritoneal structures which were not involved in the pus sac were perfectly free from infection. Another thing it teaches is, as Dr. Frank has mentioned, our inability to diagnosticate with any degree of positiveness the origin of these intra-abdominal inflammations, because the symptoms are frequently in one locality, when, possibly, the origin of the trouble is in some other locality. In this case all the well-marked symptoms of pain and tenderness in examining the abdomen were in the appendicular region, and the trouble was found to be of tubular origin. The only evidence that it originated in the tubes was found in examining *per vaginam*; these structures were found to be matted together; but they might have been matted together in appendicitis, because leakage of pus from the appendix could produce peritonitis of the pelvic

structures. Just as in a case that I reported to this Society at its last meeting —all the symptoms complained of by the patient indicated appendicitis, but the *post mortem* proved that the trouble was entirely due to rupture of the gall bladder filled with gall stones. Just as in a case reported some time since by Dr. Dugan, where all the symptoms pointed toward appendicitis, yet when the abdomen was opened it was found the gall bladder had ruptured. So it is utterly impossible to make a positively correct diagnosis in conditions of the abdomen of this character, from the objective and subjective history of the case. Another thing it teaches is that cases of tubular trouble ought to be very carefully looked into, and where a woman suffers from conditions which point to anything of this kind, she should be carefully watched, and operated upon in time to prevent a fatal termination. I believe this woman's life could have been saved had an operation been performed two weeks before she died.

Dr. J. G. Cecil: One of the most interesting points to me in connection with this case, is the method of death, as to what really did cause the death of this patient. I would have expected in a case like this, after there had been rupture of an abscess sac, general diffusion of pus throughout the whole abdominal cavity, then a rapid infection of the general peritoneum and death in a few hours, say twenty-four or forty-eight hours. This would have been a perfectly reasonable explanation. But how a woman could die in such a condition as this, without evidence of general infection and in such a short time, is to me entirely inexplicable. I could not suggest the possible method of death in this case. She could not have died of hemorrhage, as there was no blood found; she could not have died of septic poison, as there was no evidence of that; it was not, apparently, death from shock, although that seems to me nearer the correct solution than anything else, because, as I understand, in the *post mortem* no pus was found in the general cavity at all; that as the cavity was opened there existed a small amount of clear serous fluid, which did not show any evidence of general peritonitis. It is a case which teaches a good many lessons. I think probably the cause of death might have been explained if the gentleman had carried the *post mortem* further and opened the cavity of the thorax. I am sorry that the thoracic cavity was not opened and carefully examined.

Dr. J. W. Irwin: It seems to me to be a very unique case for a person to die without any evidence that would point to the cause. It is quite possible, as Dr. Cecil has said, that if the *post mortem* had been extended higher up, the cause might have been explained. I think that the only conclusion that we can come to is that the patient died of shock.

Dr. J. B. Marvin: In perforation from any cause in any cavity of the body, do you not generally have sudden death? Where there is rupture of the gall bladder, of the appendix, gut or tube; or, if you go into the other cavity, rupture into the bronchus or thoracic cavity, of an abscess, do you not, as a rule, have sudden death? How else can you explain these sudden deaths except by shock? The termination is too sudden to be from inflammatory or septic trouble. I think in the case reported there must have been some chronic peritonitis, or serous fluid would not have been found in the cavity, and there would not have been any distension.

Dr. Louis Frank: No fluid was found until we got below the umbilicus. Fluid found in the lower pelvic cavity was pure pus. The adhesions in the upper part of the cavity were evidently of recent formation, as they were very easily separated, but in the lower part of the cavity they were very extensive and tough, and very hard to separate. I believe that there was some peritonitis, probably from contiguity of structure, and that the rupture of the tube took place twelve to twenty-four hours before death.

Dr. J. G. Cecil: In answer to Dr. Marvin's inquiry: It seems to me it is not always the history, that death takes place suddenly where there is rupture into any of the cavities. I have never seen many deaths from rupture of any kind. I remember to have seen a death from perforation in typhoid fever, which I think occurred in thirty-six hours after rupture, but was preceded by evidences of acute peritonitis, was explained in that way, with pains referred in the ordinary classic directions. Deaths from rupture of the tubes in extra-uterine pregnancy or rupture of pus tubes into

the abdominal cavity, in forty-eight or thirty-six hours are perhaps not unusual, but I take it that a death in fifteen minutes from rupture into any cavity would be very unusual; deaths from gun-shot wounds into the cavity, which would be equivalent to rupture, seldom occur suddenly, unless it be from hemorrhage.

Dr. J. B. Marvin: There must have been some change going on, or it is possible the pus sac would not have dilated. There was inflammation going on without many active symptoms, at the same time there was some lowering of vitality.

Dr. Orendorf: I think death might be explained by the fact that the sudden collapse of the abscess wall in rupture caused the heart to lose its peripheral resistance, and the shock so produced was sufficient to cause death.

Dr. W. H. Wathen: I have really very little to add, more than to say that while there was no general peritonitis, and but little accumulation of pus in the free abdominal cavity, still I was inclined to the opinion at the *post mortem*, that there had been a rupture of the great abscess cavity and I believed that death occurred just after this rupture; and there would not necessarily be any great quantity of pus in the peritoneal cavity. With the structures matted together entirely across above the symphysis pubis it was almost impossible to tell exactly where the opening occurred, because in cutting down, adhesions had to be separated after a fashion that would prevent finding the opening. I am satisfied that there was more pus in the peritoneum than was noted, and in a condition of this character, with weak resisting or inhibitory powers, I think a rupture of this nature might cause death within a very short time by sudden shock.

Dr. Louis Frank: I am inclined to think she might have died of shock; this is probably the correct solution.

Dr. J. B. Marvin: In these cases where pus forms, making an abscess sac anywhere in either of the cavities, when it does, eventually, rupture, you are very liable to have sudden death. I do not think these cases should be compared with stab or shot wounds, as stated by Dr. Cecil; where the formation of an abscess has been going on for quite a while, there is a certain amount of toxic infection lowering the resistance and vitality of the patient, and, under these circumstances, rupture into the cavity is very liable to cause sudden death.

Dr. J. G. Cecil: I did not mean to convey the idea that death from rupture of an abscess cavity into the general peritoneal cavity was to be compared in all respects to trauma, that is, an acute condition like gun shot or stab wound, but more particularly to cases of the character I cited—rupture or perforation of typhoid fever, also perforations or ruptures of pus tubes, which are not so infrequent. We very seldom hear the history of cases such as has been given to-night in rupture of pus tubes. It seems to me that the only rational explanation is that the patient referred to by Dr. Wathen, died from shock. The emptying of a large quantity of pus into the general peritoneal cavity might and probably would produce great shock, and in some instances might cause immediate death, but the general observation of cases of this kind is not that of immediate deathfollowing rupture.

For instance take cases of appendicitis—we had report of a case of death on the table or shortly afterward, in one of the other medical societies last week, in which, when the cavity was opened it was found to be filled with pus, and the appendix was found ruptured, etc., a condition not dissimilar to the case under discussion. The patient was a chronic alcoholic subject, a man who had been drinking beer and other liquors all his life, and a man who had poor resisting powers. In that case, however, death followed many hours after perforation. That was the idea I had in regard to these cases; that I could not see why rupture of the tube in the case reported to-night, should have caused immediate death, and especially since there is no history of pus in the general peritoneal cavity. A little pus in the cavity might be granted, and yet there was not, according to the report of the autopsy, very much if any, pus found in the general peritoneum. Infection of the abdominal cavity could not have taken place in fifteen minutes, so it is probable, as already stated, that rupture of the tube took place some time before, and the pelvic peritoneum provided against this general infection by shutting it off, a wall or curtain being formed around the great abscess sac in the pelvic cavity, protecting the general peritoneum.

PELVIC CELLULITIS.

Dr. J. W. Irwin: The discussion of this case alarms me, and it occurs to my mind just now that I must be making a great mistake, or I may be eventually going to kill a young lady—I say kill because if I am neglecting a case I would be responsible for her death. About four weeks ago I was called to attend a young lady, seventeen years of age, who had just menstruated. Menstruation had been normal, but afterward she was taken with violent pains about the womb, extending clear across the pelvis and about half way up to the umbilicus, and there was a considerable feeling of weight in the thighs extending down the inner sides to the knees. The patient was not nervous, and a history of nervous disease in the family was wanting. There was a hectic flush on her cheeks and considerable fever; temperature in the morning about 100° F., going up in the evening to 103° F. This condition of things had existed for five or six days. There was no discharge from the vagina, and no evidence that suppression of the menstrual function had occurred prematurely, the history being that she had menstruated for five or six days. Under the old regime we called those cases, so far as I can make out, "pelvic cellulitis." The question arose in my mind as to whether I should call in an abdominal surgeon, have the abdomen opened and the modern treatment applied, or institute the old proceedings of expectancy, so to speak, for the relief of this condition. The patient is now very much better, yet there is a good deal of soreness and stiffness in the lower part of the abdomen, and tenderness under pressure. There is no history of a gonorrhœal nature that I can discover without making an examination *per vaginam*, which I have not done, as the virginity of the patient is beyond question; consequently infection of this character is not to be considered. Her general condition seems to be improved, though tenderness still exists. She turns on the bed very badly, and when she does she has some pain, but when she remains quiet there is not much pain. There is no evidence of pus formation that I have been able to discover, and if there is pus in the abdomen, I have no idea how it could have gotten there. I believe the case will go on now to recovery as far as recovery can be had in a case of this kind. But I am at a loss to know what brought about this trouble, unless we denominate it, as we formerly did, a catarrhal condition, not due to suppuration or infection of any kind. I would like to hear the opinion of the abdominal surgeons present, as to the proper management of a case of this kind, whether it would be better to submit a patient of this age with this sort of history to abdominal section, or to treat her on the old plan, which we have often done and which has often, so far as we know, cured these cases for years and until they have become mothers and subsequently have shown no signs of disease.

DISCUSSION.

Dr. W. H. Wathen: I wish to congratulate Dr. Irwin upon the treatment of the case reported without surgical interference. Such cases nearly always recover from the immediate effects without any operation. This trouble, from the entire history of the case and the history of the immediate attack, is acute. Her tubes, ovaries and uterus were undoubtedly previously in a healthy condition, and because of exposure of some sort, this local trouble began. While bacteria of some form are the prime factors in causing infection of the tubes and of the peritoneum, there may be other causes such as exposure during the menstrual period bringing on intense congestion, or traumatic injuries; but granting that it was infectious in its origin, there is no necessity for operation because the trouble is not sufficiently advanced to cause pus, and pus does not accumulate in tubes in this length of time; there might be salpingitis and some local pelvic peritonitis without an accumulation of pus; that would be an after result coming on in weeks, or months, sometimes in years. By the pathological processes familiar to abdominal surgeons, the tube becomes obstructed at the outer extremity and finally at its inner extremity, the accumulation of pus thus becoming sacculated. But this woman may have had no pelvic peritonitis, because salpingitis of an acute character might bring on all the pain with which she suffered, and the elevation of temperature and acceleration of pulse described by Dr. Irwin. I believe that this patient will recover without an operation at any time, and shall be surprised if in the future there is any accumulation of pus in

the tubes, or sufficient adhesions of the pelvic peritoneum to cause enough disease to justify a laparotomy.

Dr. J. G. Cecil: I heartily agree with what Dr. Wathen has said in regard to there being no occasion for surgical interference in this case. I believe the line of treatment pursued by Dr. Irwin is the one which is generally recognized as being correct and proper. I might ask if there is not a possibility of gonorrhœal infection?

Dr. Louis Frank: I believe in all these cases there is a possibility of accidental infection. I do not mean by this infection from coitus, but there is danger of infection from one member of the family to another, and this has recently been illustrated in an article written by a German investigator in the *Centralblatt für Bact. und Parisiten-Kunde.* In this article there are quite a number of cases reported of children, ranging from four to fourteen years of age, every one of which suffered from vaginitis. An examination proved that in every case the gonococci were found. It was finally ascertained that infection had occurred from one of the older girls having gonorrhœa, and the children all using the same bath-tub, the same towels, and some of the same linen, the infection had spread from one child to the other. If this is the case, and we have no reason to doubt it, I think that it is quite possible for all of these cases of vaginitis in young children to arise from gonorrhœal infection. Lately it has also been shown that specific organisms, such as the staphylococcus pyogenus aureus, may exist in a perfect healthy vagina without causing any trouble whatever. These organisms may also spread to the uterus and tubes and give rise to pus tubes. As for myself, I believe that nearly all pus tubes are due to specific infection. We may not be able in all these cases, however, to demonstrate the existence of the specific organism, because it is known that organisms die out on any medium in which they may be growing, provided this medium is by their continued growth rendered unfit.

Dr. I. N. Bloom: Concerning accidental infection—as a case in point: A child, five years old, was brought to me, suffering from what seemed to be simple vaginitis; no examination was made for the gonococcus because gonorrhœa was not suspected. The history of the case was that the child had been with her grandmother for two or three weeks, and there she had noticed a slight discharge from the vagina of muco-purulent material; she had developed a severe ophthalmia two weeks after her return. An oculist was called in and upon examination pronounced the trouble gonorrhœal ophthalmia. All history of gonorrhœal contact was denied by both the parents of the child and the grandparents, but accidentally the oculist discovered in a drug store, a prescription for a nitrate of silver solution to be used as an injection by the father, who had denied any history of gonorrhœa. Seven or eight weeks after I first saw the child, the father consulted me with the remains of a clap. Had it not been for the accidental discovery of the prescription in the drug store, it is probable that I should never have suspected anything more than simple vaginitis. I do not believe that a clear differentiation between simple and specific vaginitis has been demonstrated clinically in young children.

Dr. J. W. Irwin: I have very little to add in closing. The possibility of infection in this case is very remote indeed; if such a thing could occur it would be almost miraculous. So far as the treatment is concerned, thus far it seems to have been successful in relieving the trouble, and I hope the good results will continue until she is finally restored to health. I am gratified to see that the gentlemen who have spoken on the subject, agree with me in the management of the case. I have had a number of cases of this kind in former years, before the question of abdominal surgery for the relief of such conditions was spoken of very much, and, I believe, with fairly good results. In a great many cases permanent recovery resulted, while in a few the results were not permanent, and I have no doubt some of them, before this time, have lost the tubes, ovaries or womb.

He Had No Headache.

Mrs. Cawker—"Haven't you got a headache to-night, Ben?"

Mr. Cawker—"No, my dear."

Mrs. Cawker—"Oh I am so sorry that you have not! I bought a new headache cure to-day at a bargain, and I wanted you to try it."

THE WESTERN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Annual meeting, Kansas City, Missouri, December 27th, 1892.

[OFFICIAL REPORT.]

Dr. J. C. Barnes' (see page 517) paper on

ECLAMPSIA OF PREGNANCY.

DISCUSSION.

DR. HALL: That we are all in great doubt as to the cause of puerperal eclampsia in pregnancy goes without saying. I have had a great many cases, unfortunately, though, fortunately many of them have recovered. I think the majority of them were dependent upon renal trouble. However, we do come across different causes. Recently I was in consultation with a physician in this city, in a case where there was no evidence of renal trouble, and the patient went into a comatose condition after the second or third convulsion and never rallied, but died. I believe that in our progress, so far as the treatment of this disease and condition is concerned, we have sometimes, perhaps, progressed away from the truth. It is the fashion to lay aside venesection too often. In most cases, especially in plethoric cases, it is indicated. In fact I always use it in those cases.

In regard to the treatment there is a remedy not used in this case, which I have used and which has been used more largely by others, that is undoubtedly of great value, and that is the hypodermic injection of *veratrum viride*. That it has wonderful power in controlling these convulsions is unmistakable. I have given from four to ten drops hypodermically, frequently combining it with morphia, with the happiest results. Some physicians I have known to use as much as fifteen to twenty drops hypodermically. I used sixteen drops once and thought I had killed my patient. The amount of serum or bronchial secretion poured out was simply so enormous that I thought my patient would strangle before she could be relieved. But I do recommend and insist upon the hypodermic injection of veratrum viride. Just how it acts in controlling the pulse I don't know; but it is a fact that it acts promptly, efficiently and satisfactorily. Venesection, veratrum viride, morphia and chloroform, and the hypodermic injection of pilocarpine would certainly be indicated in this condition.

I wish to say also in regard to pilocarpine, my observation has been that in some of these cases I get a much more diuretic than diaphoretic effect; and I have frequently given it in cases where I desire a diuretic effect with success. I long since came to the conclusion that pilocarpine is much more valuable as a diuretic than as a diaphoretic, and in my own cases, if I anticipate any trouble, I give them pilocarpine in advance for the diuretic effect. Gentlemen, if you have not already noticed it, I believe you will find it worthy of trial.

DR. FRYER: From the standpoint of an oculist, I wish to say a word as to a point that I believe is often overlooked by obstetricians, and that is this, that in cases of pregnancy where we have trouble with the kidneys, it causes retinal difficulty; and that occurring during or before the seventh month of pregnancy, a very large proportion of those cases die from convulsions, or, if they get through their labor, they are afterwards blind from optic nerve atrophy. This is a point that I think every obstetrician should be aware of and keep in mind. I wish to concur in what my friend, Dr. Hall says in regard to pilocarpine in its action upon the kidneys. I have used pilocarpine hypodermically very largely, and I am sure in a large number of cases that we have the main effect upon the kindeys, and often little or no effect upon the skin.

DR. KING: Very soon after the reader began I mentally said, that patient died. That was not owing to the treatment at all, but from the fact that it is a very rare thing, after so many convulsions, or even half as many as noted in that paper, for such a patient to recover. My experience has been, and I believe the experience of others will bear me out, that where we succeed in curing the patient—

or relieving and saving her—it is only in those cases where we succeed in checking the convulsions at an early stage. I have seen but few cases of eclampsia, perhaps eight or ten, and it is my experience, where the patient had had eight or ten or fifteen convulsions before I got there, and that they continued afterwards for some time in spite of what I could do, the patient died. The patients I saved were those I saw early.

I believe there are two prime factors in the matter of relief. One of these is an early delivery. In the case of a pregnant woman with eclampsia, every possible effort should be made to secure delivery as soon as possible. The other factor is the elimination of the morbific element, whatever it is, through the alimentary canal and by venesection. I think it was unfortunate in this case that they were not able to get blood from the veins. It would have been justified if they had opened the temporal artery and got relief in that way. It was unfortunate, too, that they did not secure free action of the bowels. In cases such as this, where the convulsions have continued so long, and it is impossible to get that action otherwise, I believe that croton oil combined with sufficient doses of elaterium, every two or three hours, will do that work if it can be done, and I place a great deal of confidence in large evacuations from the bowels. My experiencce has been the same as that of Dr. Hall in that I rarely ever get diaphoresis. I have never tried pilocarpine for the reason that I have never seen a case of eclampsia since pilocarpine has been in use, and I hope I may never again see one.

Dr. Barnes: In closing I have nothing further to say except that I am getting a little more credit than I deserve. At that time, I was resident physician in the hospital. After we got the patient in, she was in charge of Dr. Fullerton, who did the primary operation on the cervix.

Dr. Schooler's paper on

UTERINE FUNGOSITIES.

(See page 571).

DISCUSSION.

Dr. Beattie: In the paper the writer has taken up this subject so fully, and his ideas coincide with mine so nearly that it does not leave very much for me to discuss. This condition is one that should be carefully looked into not only by specialists but by practitioners in general. As to the treatment of these cases, I have never had any experience with electrolysis, but from the writings of others, I conclude that good results have been derived in that way. I usually resort to the curette for the removal of these fungosities, and I use a sharp curette. It is not attended with much danger in the hands of an able gynecologist. When these growths are removed skilfully and carefully the endometrium, we know, is reproduced, and satisfactory results can usually be obtained. We may not only have the endometrium softened, but the softening may extend down into the body of the uterus. We may have a uterus that is in a sub-involuted condition; we may have a large amount of engorgement there. Where there is good deal of softening, very little pressure will take the curette into the abdominal cavity, hence it should be used with caution. Some operators never resort to the sharp curette.

Curetting should be done under strictly aseptic precautions and with an anæsthetic. I have curetted the cavity in my office, but it is something that I don't like to do. I would rather have the patient at a hospital or at her home, where she can be attended to properly and carefully.

Dr. Cordier: From the articles that appeared in different journals over the country, by men who are teachers in eastern cities, as well as some in our western cities, this subject, to me, is one of the highest importance in the whole range of gynecology. Sometime ago a noted writer, in condemning the removal of pus tubes and the opening of abscesses, etc., asserted that any obstacle we can place in the way of the laparotomist, we should do so. Now a declaration like that, coming from the source that it did, does an injustice to the progressive men of the country; it does an injustice to the patients of the country. These men are in positions of trust, so to speak; they are teachers; they are writers. Their writings are countenanced; they are accepted and recognized as being authorities. It remains for us, who disagree with their views, to overthrow these false theories. We are told that in septic conditions of the uterus, curetting is the thing to prevent extension of the trouble to the appendages.

We are told that cellulitus still exists in the pelvis as it did years ago, when it has constantly been demonstrated by operations and post-mortems that where we find inflammatory trouble in the pelvis, there we find diseased uterine appendages, abscesses, etc.

Now there are cases for curetting, but there is no doubt but such cases are few. Curetting is a major operation. It is an operation that one should undertake without knowing and having the ability to recognize whether or not he has diseased Fallopian tubes to deal with at the same time, because any interference with the uterus is sure to aggravate tubal trouble. In salpingitis it will convert a so-called latent condition into an acute condition, followed by the formation of pus with its direful results. As I say, this is certainly a major operation; it should not be done in the office of the physician. The patient should be put to bed; she should be prepared with the same care as though for a laparotomy. Scraping and cleansing of the vagina and uterine cavity should be carried out with just the same precaution, and as careful preparation as the largest abdominal operation known to surgery. The os should be dilated for two reasons, that your work may be safely done, and that the drainage may be good afterwards—a very important thing in these cases. In a large number of these cases where the curette is indicated, you will find it to be for retained placenta. Outside of that it is extremely rare to find a case where the curette is indicated. I desire, before this society, to condemn the reckless use of the curette; I mean by reckless use, the use of it in the physician's office. Within the last two weeks, I have known of patients alleged to have been curetted in the office of physicians, without anæsthetics, without dilatation of the os; they have been curetted and allowed to get up off the table and go shopping. It is a question in my mind whether they were curetted or not. If they were curetted, I don't believe they needed it; if they did, they didn't get the proper treatment, because it wasn't done correctly, for no man can do a curetting properly without an anæsthetic.

Dr. Van Eman: As I understand the gentleman's paper, he treats not of women who are bearing children and liable to have a portion of the placenta retained, but of that class of women, from forty-five to forty-eight, who have had from week to week and month to month, more or less hemorrhage from the uterus. They have been told perhaps by their family physician, and much oftener by the neighborhood women, that that is part of the penalty they pay for being women, and as a rule they neglect to call upon a physician, even their family physician. They will go further than that, and after the flow has ceased for a year or two, some of them think their youth is coming back to them. Now that is the class of cases, as I understand the paper, that indicate the use of the curette. Now I have one rule so far as that septic business is concerned, it is simply: Be sure of being clean yourself, of having a clean instrument, and that your patient is clean. If you stop short of that, I don't care whether it is in the office or in the hospital, you don't fulfill the whole law so far as surgery or gynecology is concerned. When you fulfill that law to the letter it doesn't make a great deal of difference where the work is done; that depends a great deal on the nature of the case. Now the first law that I lay down is, that every woman who has a protracted hemorrhage, the physician should decline to treat without an examination—just simply decline. Second, that an examination should be made with the greatest care, whether made at the office or the woman's home. It is often much more convenient to make it at the office than at the house. When it has been decided—and it can be decided very easily by the plan outlined—most any instrument, if it is clean—and if not, he hasn't any business to use that, or anything else to be passed into the uterus—may be used, and you bring out a little warty mass. You don't need to have half a dozen of these; one is sufficient to tell the practiced eye what is inside of that uterus. I have in mind now the case of a woman forty-seven years of age, who for six weeks had had a continuous hemorrhage, supposing it was she who paying the penalty for being a woman, and so giving but very little attention to it until finally she became so blanched and bloodless that she couldn't sit up in bed, and I was sent for. In that case there was no trouble at all to find out the condition of the uterus and to use the curette. I used the sharp curette—and I take it for granted

that the man who isn't fit to use a sharp curette isn't fit to use any curette. I could have done it without dilating the os, but I did dilate and under the influence of an anæsthetic, because it is easier to do the work and to do it thoroughly. A few minutes curetting absolutely and permanently cured this woman of her metrorrhagia. There isn't anything that would remove that but curetting, any more than it would remove a wart on your hand. It is an exuberant growth covering the uterus, and the sharp curette is the instrument to use. Be just as clean as you know how; if you don't know how to be clean, learn.

Dr. Adams: I heartily concur in this paper with the treatment which is advocated. The gauntlet has been thrown by Dr. Cordier, but unfortunately is outside the scope of this paper. I am a firm believer in the curette and its efficacy in certain circumstances and conditions. But referring to the paper and speaking to that alone, I don't believe in the use of the curette to gain any definite object and therapeutic effect unless under the use of an anæsthetic, and with all the precautions that you would enter upon a laparotomy. I believe that when you curette the uterus you should have a thorough dilatation; that you should have all the aseptic preparations necessary for any operation; that in the hands of him who has his mind at the end of his fingers, the curette is a safe instrument. In cases of uterine fungosities it is pre-supposed that the physician will examine the patient and take in all the surroundings before he enters upon that operation. He will see whether there is a pus cavity there. He will take every precaution—emptying of the bowels, thorough antiseptic irrigation, and then, if you please, antiseptic or aseptic packing—and you can enter the uterine cavity with a curette and take out uterine fungosities just as safely as you can enter the abdominal cavity and take out the ovaries or uterus. That is all there is to it.

Dr. Beattie: Dr. Cordier and Dr. Adams both spoke especially of dilating the cervical canal. Now my experience has been that when the endometrium is fungoid in character there is some change in the cervical canal as well. Nearly always when we have this condition of the endometrium, we have some inflammatory trouble existing in the cervix; and, when this is the case, if it has gone to any great extent, you will find, instead of the rigid os, a relaxed condition; you will find the cervical canal very much thinner than it is under ordinary circumstances, and as a rule you can introduce quite a large curette without any trouble, and to save my life I can't see why you want to dilate the cervical canal.

Cleanliness is certainly important. I listened this afternoon to one or two of our brother practitioners discussing the paper that was read, upon the mode of preparing patients and instructing medical students, and the taking care of women in confinements. It is nice to tell these things; it is nice enough to come before the society and say what you ought to do, but I tell you, gentlemen, you don't do it; you don't do it very often. And it is the same with reference to this particular operation. These things should be done at the hospital or they should be done at home under the most careful circumstances. But I say that cleanliness is all that we want; it is all that we want in the obstetric chamber; it is all that we want any place. And it is supposed that an ordinary physician is a man of a little more than ordinary calibre, and the men in the particular line of the diseases of women that I am speaking to—I mean who have devoted some special study to obstetrics—it is supposed that they understand these things; it is supposed that they will not undertake a case unless they have washed their hands thoroughly and have taken the other precautions.

Dr. Ward: I desire to correct Dr. Beattie about one thing, if he is referring to the physician-in-charge of the Preston Retreat; and if he means to state that he doesn't carry out the minutia that he describes. And I will ask him to kindly go to Philadelphia and observe, at my expense—that is, if he finds there is any error in that matter. I think you will be very tired, Dr. Beattie, when you see the minute details—when you see the work there—and say you can never do it yourself.

Dr. Beattie: I don't refer to my friend, Dr. Price. I think he does not go so far into the details with reference to some of the minor things in obstetrics, as my friend, Dr. Berger. I hope Dr. Berger is here to-night; I wanted an opportunity to answer his remarks this after-

noon. It was the way he had his medical students prepared for the obstetrical room. I tell you, gentlemen, when you tell me these things, I know better; I have been a medical student myself, and I know that they don't—at least when you give them bichloride of mercury and the other antiseptics—they don't use them, and they have just as good results as the men who are so very careful. I visited the Preston Retreat this summer, and I was very highly pleased and certainly encouraged. I was delighted with the conveniences and details of that institution; and it was certainly not with reference to that institution that I was speaking.

Dr. Price: This is a very interesting subject and has received considerable attention this evening. It would seem that some gentlemen have limited the discussion to about one-half of its territory. If the doctor proposes to confine his use of the curette in this discussion to so-called fungosities and vegetations, papillomatous growths, polypi and the like, of course we can't take that liberty with his paper and with the curette that we should like. I feel that the curette has been used with very considerable freedom and recklessness—used without clear and recognized indications. I think about all the gentlemen have indicated that fact in their discussion, that it has been used by some without a recognition of clear indication. We well know that we can have profuse and irregular bleeding and discharge from a crop of sago granulations and papillomatous growths or fungosities, if you please. Just here, I may say, I am not so familiar with these so-called fungosities. I don't believe that the uterine cavity is so productive of that form of vegetation. You commonly hear in societies men speaking with great freedom about fungosities, but if you look them up and seek for them pathologically, you will often fail to find them. I believe in cleaning the cavity of an unhealthy uterus or of a dirty one, but first I must be assured that it *is* an unhealthy uterus or that it *is* the seat of some growth of that nature. To-day, for instance, I made a demonstration; I removed a uterus from a woman fifty years of age, who had bled profusely and irregularly, had had a copious discharge and had received local and general treatment without relief. After removing this uterus—incising it—I remarked before one or two present, that my finger or towel or a little piece of gauze would not wipe away all unhealthy condition found in the cavity. This uterus was the 101st. that I have removed by supra-vaginal hysterectomy, and in that group of 101 I have never removed a uterus that had anything in it that should be scraped away by the curette. And out of a series of some fifty or sixty vaginal hysterectomies, my experience stands precisely the same. I have used the curette freely in intra-uterine sarcoma, and that is not a rare disease. The cervix in many cases is perfectly healthy; there isn't the semblance of disease; the fundus is so soft and cheesey that you could scrap away almost the whole cavity of the uterus with the curette. We have no other means of clearing up the diagnosis in this group of cases except with the curette. We have profuse, irregular bleeding, offensive discharges suspicious in the highest degree; but to settle the question as to the precise nature of the trouble it is necessary to use the curette. It is also necessary to use it in mucous polypi and sago granulations, and in the remaining debris of a neglected abortion or miscarriage.

I wish to speak especially of this group of cases, the free and indiscriminate use following abortions or miscarriages when there is a suspicion of a membrane or a portion of the placenta remaining. You all very well know that there is a little gynecological wave going over New York at the present time, an endometritis wave. We have had these waves in gynecology for years, and just at present in New York everything is endometritis. It matters not what is the nature of the trouble in a woman's pelvis, the curette is used. I found last summer, while dealing with a few of these cases, having seen a few of them in New York—and specimens presented—for instance the puerperal or abortion cases—later I had to remove angry and vicious specimens from the pelvis, together with quantities of lymph, pus and muddy fluid independent of the specimens removed. I could not permit these cases to go without saying something about the New York treatment. They curette the uterus and pack it with gauze.

About the time I was dealing with some of these cases, a young physician assisting the coroner came into my office and asked for some practical work in obstetrics. I

asked him how he was spending the summer. He said he was following the coroner, and went on to tell me that they had an interesting case out at Blockley Hospital — criminal abortion; that they had some one arrested and locked up. I asked, "Did you have a *post*?"—"Yes."—What did you find?"—"We found all the intestines matted together, pus and lymph and everything glued together."—"What had been done?"—"Well, the uterus had been curetted and we found it full of gauze." Probably I am not confining myself strictly to the paper but I just cite this case—and I could cite a great number of them—to show the reckless use of the curette without recognizing the precise nature of the trouble.

Dr. Halley: I think that waves of fashion pass over the professional world as well as the social world. I know it does. I think the present wave of using the curette is one of them. It is in the hands of everybody who is pretending to do anything at all either in obstetrics or gynecology—and pretty near all of us do something of that kind—and every one thinks he has a warrant to go in and scrape the womb. It is a wonder one doesn't scrape her mouth out when she is bleeding at the gums; it would be about as sensible. I believe there is a great deal of harm done by it.

But I don't rise to discuss the paper in this way. Some twenty years ago, it was suggested to use nitric acid in the cavity of the womb for the treatment of those fungosities, and it was a treatment that the inventor declared gave him excellent results. In the small number of cases in which I have used it—and I have used it in as many cases as I found occasion for—I obtained most excellent results. Dilating the cervix and, in place of curetting, washing the cavity of the womb with some cotton. This, of course, after making the preliminary preparations. After that is done, in place of using the curette, use a piece of cotton or sponge saturated with fuming nitric acid. You can do all and more than you can with the curette.

Dr. Van Eman: Just let me take the floor to say that the "more" that you can do with nitric acid is just what I object to.

Dr. Schooler: Some objection has been found with the name given to the growth for which the curette is designed to be used. It is used generically for vegetations that can be relieved by that method. Now I saw the uterus that was removed to day, and saw the condition of the endometrium. It was not different from that of many others that I have seen, and I don't know what indication there would have been for the curette in that or any other fibroid tumor, unless you wish to use the curette first and make the diagnosis afterwards.

But if I intended to have any point to the paper, it was to make note of suitable cases, to limit the use of the curette to that class of cases entirely and not to go beyond that. It is a comparatively easy matter to ascertain whether any of these growths exist or not. If none of them exist, there is no benefit derived from the use of the curette except to scrape away the debris or remaining portion of a placenta after abortions or miscarriages; or sometimes where the placenta has not been properly or entirely removed after a normal parturition. The use of the curette in malignant growths, as a matter of course, is only temporary, and perhaps is more frequently used as a means of diagnosis than otherwise.

I agree with Dr. Beattie that dilatation is not very often necessary in these cases, although occasionally cases will be seen where dilatation is necessary before you can bring away anything of any size or importance with any comfort to yourself.

Now so far as fashions are concerned, that I suppose has allusion to the reckless manner of using the instrument. That, of course, I condemn as well as others; and as to the use of nitric acid, I agree with my friend on the right here (Dr. Halley), that if that should become the general practice to-day, there would be a great deal more done with it than has been done with almost any instrument in the last quarter of a century, and generally be to the detriment of the patient. Of course, I don't wish to be understood as saying that these growths cannot be destroyed by nitric acid, or that any other growth cannot be destroyed by nitric acid if applied in a sufficiently concentrated solution; but that strength would make it dangerous and haphazard when applied by persons without proper knowledge and experience.

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SATURDAY, APRIL 22ND, 1893.

EDITORIAL.

"MUCH ADO ABOUT NOTHING."

"Are you good men and true?"

"Yea, or else it were pity but they should suffer salvation, body and soul."

"Nay, that were a punishment too good for them, if they should have any allegiance in them, being chosen for the prince's watch."—*Shake.*

Under the alluring title "An Experiment in Castration" the *New York Medical Record* editorially gives the following unique item of news:

"An interesting experiment has suddenly come to grief at the Norristown Insane Asylum, Pa. Some of the medical staff became much impressed with the value of castrating women as a therapeutic measure in insanity. The consent of the trustees being secured a surgical ward was established, and fifty patients selected as being cases likely to be benefited by the operation. The process of oöphorectomy was begun, and went on swimmingly until the fifth case was reached. The fifth patient died, and a pause in the surgical work ensued. The Lunacy Committee of the State Board of Charities took up the matter, an investigation was begun and a report made. This report condemns the operation of oöphorectomy, except in cases of gross disease which absolutely demand extirpation. The subject of the personal rights of the insane in the matter was dealt with by a legal member of the Committee, who offered this official opinion:"—(Here follows the legal member's invaluable opinion).

The editorial comment would be a very good one if it were not a misfit.

As it is considerably over six weeks since the affair was fully exploited, it would seem as though the information ought to have reached New York at this date, even if it travelled *via* Chicago.

However, the *Record* is not the only medical journal that has just obtained the news of last December. The following letters, which appeared originally in the *American Journal of Insanity* for January, 1893, under "Correspondence," have re-appeared in a variety of other journals of more recent date—published by request. Most, though not all, of these journals appear to have missed connection with passing events, and are not yet

aware that these effusions are criticisms of "castles in Spain."

To the Editor of the *American Journal of Insanity*, Utica N. Y.:

My Dear Doctor: Thinking you might desire to publish three letters bearing on the papers sent you recently, I enclose you copies of letters received from Drs. Chapin, Goodell and Levick, all of this city. I would be glad if these could appear in the same issue of your Journal as the reports you have.

Very truly,

Thomas G. Morton.

Dr. G. Alden Blumer.

Philadelphia, 12th Mo. 23, 1893.

Dear Doctor Morton:

The portion of the forthcoming report of the Committee on Lunacy on "Removal of the Ovaries as a Cure for Insanity" and the opinion of Commissioner Barlow on the legal relation of such operation, kindly sent me for perusal, are herewith returned.*

I can hardly express in words the satisfaction and gratification I experienced on reading your paper.

First, I felt to thank the Committee and the State Board that they have come forward to exercise the powers of their office to save the hospitals, and I may say our profession, from what threatened to become a scandalous proceeding. To erect an hospital, or propose one where women were to be castrated in companies of fifties, with the hope of a cure of insanity, would be generally regarded, in the present state of meagre knowledge upon the subject, as revolting.

There is no sufficient experience nor knowledge to warrant an operation of this nature, and I am sure that in this opinion you will have the support of the entire profession and the community. I will further add that the paper is so logical, and, as to the rights of all concerned, cannot be overturned.

In a case in England, Dr. Robert Barnes declined to perform the operation without the consent of the Commissioners of Lunacy.

Several applications have been made at this hospital for permission to perform the operation here, upon patients who were insane. It has not been the policy of the hospital to encourage operations of an experimental character, founded upon hypothetical conditions, upon the insane.

I am sure, for these reasons, and for the moral and legal questions involved, the managers would be in accord with this sentiment if the question were submitted to them.

As a physician of an hospital caring for the insane, I would, under no circumstances, assent to the performance of the operation discussed by your Committee upon a patient, if the responsibility devolved upon me.

Hospitals for the insane might easily lose a portion of the slender hold they now have upon the public and friends of patients, if it were understood that the patients were subjected to experimental operations of a hazardous nature.

Believing the action of your Committee and the State Board is in the direction of a wise exercise of its prerogatives, I shall support it and conform my action to it.

I remain, sincerely yours,

John B. Chapin.

December 14, 1892.

Dear Dr. Morton:

In the main I agree with you in the points which you have made. I believe that the whole business of removing the ovaries has been horribly abused, and I am glad that you have taken such a firm stand.

I have written to Dr. W. H. Baker, of Boston, for an account of his trial for removing the ovaries of a crazy woman, and I will send it to you when it reaches me.

Dr. Francis Imlach was ruined financially, professionally, and in his health by an analogous law-suit.

Very faithfully yours,

William Goodell.

Dear Dr. Morton:

I have read with great satisfaction the paper kindly sent me by you. With the sentiments there expressed I heartily concur.

Insanity is a disease of the brain, not of some organ remote from it. And when manifestations of insanity seem to be especially associated with functional dis-

*This "portion" was withdrawn by the Board of Public Charities and its unauthorized publication formally denounced—Ed.

turbances of some one organ, this disturbance is secondary to the brain disorder, not the cause of it.

One of the most frequent phenomena in the insane is seen in disturbance of the digestive function, an *excessive* desire for food or a *depraved* appetite—*boulimia* and *pica*. Even pins, needles, stones, etc., are eagerly swallowed by such patients. But no one has ever proposed to cure this disorder by removing the stomach, or other organs concerned in digestion. The brain disorder is remedied and this functional disorder passes away. So, too, it is with the ovaries. To remove them *for the cure of insanity*, is, in my opinion, unscientific from a medical standpoint, unjust to the helpless insane, and I am glad it has been pronounced to be, by a high legal authority, an illegal if not a criminal procedure.

Very truly yours,

JAMES J. LEVICK.

December 26, 1892.

These three letters are interesting "voices out of the past." Two of them we lay aside without comment. But the first, on account of the official position of the writer and in no way because of his personality, must needs bear criticism.

"*Come hither, neighbour: God hath blessed you with a good name: to be a well-favoured man is the gift of fortune; but to write and read comes by nature. . . . . Well, for your favour, sir, why, give God thanks, and make no boast of it; and for your writing and reading, let that appear when there is no need of such vanity. You are thought here to be the most senseless and fit man for the constable of the watch.*"

It ought to be easy for the writer of this letter to find his affinities in an asylum for mental cripples. The letter strikes us as a large exhibition of moral cowardice, professional jealousy and perverted cerebration.

The author is greatly rejoiced that, "the hospitals and the profession are saved from a scandalous proceeding."

The only thing proposed was to treat the insane as others are treated. To operate for clearly and well-marked disease. "There is no sufficient experience nor knowledge to warrant an operation of this nature."

There is not much experience to be sure, but of knowledge there is abundance and most positive in character. But so long as superintendents take the position that "under no circumstances" would they consent to the performance of necessary operations for the relief of disease, we are not likely to have a very large amount of experience. Hospitals *ought* to lose the slender hold they now have upon patients more easily and quickly by failing to do their plain duty, than by resorting to the clearly indicated surgical treatment, by and with the consent of guardians and friends.

In Tukes' Dictionary of Psychological Medicine, Vol. II, pp. 876, Dr. Robert Barnes, who writes the article, says: "The indication to remove the ovaries was to our judgment decisive. We were supported by the assent of her guardians, of an eminent hospital physician and of a distinguished alienist, but we declined to undertake the responsibility without the sanction of the Commissioners in Lunacy. *The patient continued insane.*" He goes on to say: "Sir Spencer Wells, in a case somewhat different, being consulted as to the legality of operating upon a lunatic, asked Sir Wm. Harcourt, then Home Secretary, who said: "If she is incapable of judging for herself, treat her as if she was an infant." So the operation was done, the patient recovered and married. Surely, (so Barnes concludes) this *dictum* is good sense as well as good law."

And earlier in the article he says: "One lesson to be deduced from this apparent conflict of experience is that the question demands earnest and extended inquiry." The lesson Dr. Chapin deduces is "Do nothing!"

When he says that "under no circumstances would he permit such an operation" he evinces unfitness for the position

he holds. If such a spirit as his is to predominate in the institution under his control, let them no longer call it a hospital. It is rumored that he and his colleagues do sometimes call in a consulting gynecologist, but a great majority of their female patients are never examined. In 1885, a woman was received at the Norristown Asylum coming from under the care of Dr. Chapin, *et al.*, at the Pennsylvania Hospital, where she had been for a long time. She was suffering from multiple carcinomatous growths attached to both uterus and ovaries. She lived only a few months and probably could not have been helped at an earlier stage, but her friends thought it very strange that the nature of her trouble had not been inquired into at the Pennsylvania Hospital. In like manner another patient was received at Norristown a few months ago, who had been three years at the Pennsylvania Hospital. She has some abdominal tumor of large size, presumably uterine fibroid, but Dr. Chapin could furnish no information on the subject when applied to. And this is a fair sample of common hospital treatment for the insane.

There is no general hospital where any well-informed medical man would be willing to send one of his insane friends, knowing they would receive hospital care and treatment.

A short time before the death of Dr. Kirkbride, one of Philadelphia's most eminent surgeons was speaking of this lamentable condition of affairs. He said: "I would not know where to send my wife or daughter, and if Dr. Kirkbride dies, I know a dozen men who will go before that Board of Managers and demand that this state of things shall cease." Evidently it has not ceased. They continue to take patients to board in a highly respectable way, but that is all. Dr. Chapin's own words convict him.

The writer of that letter will never be compelled to join in the piteous lament of Dogberry: "Dost thou not suspect my place? Dost thou not suspect my years? —O that he were here to write me down, *an ass*! But, masters, remember, that I am *an ass*; though it be not written down yet forget not that I am *an ass*.—No, thou villain, thou art full of piety, as shall be proved upon thee by good witness. I am a wise fellow; and, which is more, an officer; and, which is more, a householder; and, which is more, as pretty a piece of flesh as any is in Messina; and one that knows the law, go to; and a rich fellow enough, go to; and a fellow that hath had losses; and one that hath two gowns and everything handsome about him.—Bring him away. O, that I had been writ down—*an ass*!"

He has allowed his writing and reading to appear "when there is no need of such vanity." Had he exercised due discretion and not allowed his credulity to place him at the mercy of "bunco players," he would speedily have learned of the action of the Board of Public Charities, repudiating the course of the Lunacy Commission, whose erroneous information and unauthorized, premature publications had placed the Board in such a stultifying position; and that the Board had unanimously rescinded that portion of their report bearing on the subject, and, that it had not been published with their knowledge and approval.

All this and more has been set forth in the "Reporter," the last mentioned action being announced in the issue of March 11th.

"Were you ever caught in a sudden squall?" asked an old yachtsman of a worthy citizen. "Well, I guess so," responded the old man. "I have helped to bring up seven babies."

Two Girls—"Please sir, do you keep excursion pills?"

Chemist (equal to the occasion)—"Yes, we have some very fast ones."

TRANSLATIONS.

PHYSIOLOGY OF THE HEART.†

Germain Sée (*Le Bull. Mèd.*, Jan. 25) says that the cardiac system comprises three distinct elements, the muscle, the vessels and the nerves, which are themselves of three orders:

1. The cardiac muscle, or myocardium, governs the entire circulation, since, as proven by recent observation, it exercises an absolute and independent automatic power, scarcely modified by the functions of the other organs of the motor apparatus of the blood.

2. The vessels, especially the arterioles which may be taken as a type, constitute cylinders, tubes at times elastic as rubber, and contractile as smooth muscular organs; the elasticity, a passive property, when put into operation, furnishes an obstacle to the progress of the blood; the contractile activity reduces the calibre of the vessels and retards the circulation. The vessels are not, therefore, as has been recently suggested, a peripheral heart; the contrary is true; they are most often the antagonists of the heart, or at least, obstacles to the course of the blood (Dastre and Morat, 1884). This is especially seen when the tubes have lost their elasticity, as in arteritis, sclerosis, atheroma, and especially in calcification, where the tubes become rigidly, inflexible as incrusted canals.

3. The nervous organs are of three classes. The first comprises the ganglia to which has been ascribed the power of motor innervation, or the faculty of arresting motion. The most recent works have justified this hypothesis, so generally admitted. None of the ganglia, neither Ludwig's, Bider's, nor Remak's, possess an impulsive property. The heart is endowed with automatism and antonomy. Its movements, once established in their rhythm and according to the laws of activity of muscles, may be augmented in number by the sympathetic nerves, called accelerators, radiating from the spinal cord, or diminished by the indefinite nerves, called depressors, radiating from the medulla oblongata; this is the role of the second series of nerves.

The last series is, on the contrary, a true regulator of the tubes of escape. It is composed of two classes of nerves; in the first place by the vaso-motor *constrictor* nerves, which have their center of origin in the bulb; when these nerves are active the vessels which they supply contract and impede the transmission of the blood towards the periphery. If, on the contrary, the vaso-motor constrictor center, the source of the nerves of this name, becomes paralyzed, all the vessels of irrigation are relaxed; the vaso-motor paralysis has relaxed their walls. The other form of vaso-motor nerves is that known as the *vaso-dilators*; by their excitation they produce dilatation, the same effect as is produced by a paralysis of the vaso-constrictor center. The paralytic relaxation of the vessels or their true dilatation tend in certain conditions to a favorable result for the heart; they are the indirect means of progression. The constrictor nerves, stimulated in their center or in their periphery are, on the contrary, the means of reduction of the circulation.

The ganglionic masses and their respective roles in the functionating of the heart, have been variously interpreted and recently discussed in a new sense. Their situation was discovered by Woldrige (1883) and Tigerstedt (1884); their functions were gone over by His and Romberg in 1891, and definitely fixed by Krehl and Martins recently (Sept. 1892). The extra-cardiac nerves coming from the vago-sympathetic nerve, pass to the posterior surface of the bulb of the ascending aorta, and are directed towards the upper surface of the pulmonary artery. There, they divide into two networks, one of which, called bulbar, descends towards the ventricles, and the other, or anastomotic network, passes between the bronchial tubes and the pulmonary artery toward the auricles to constitute the auricular plexus. There are, therefore, a bulbar and an auricular network, together with an anastomotic plexus. The ganglia are collected in large number at the point of division of the bulbar and anastomotic plexuses; they are well surrounded by large arteries. Below the point of separa-

†Translated for THE MEDICAL AND SURGICAL REPORTER, by W. A. N. Dorland, M. D.

tion of the coronary artery, which, in the rabbit, enters immediately into the cardiac muscle, there are but few ganglia situated at the lower border of the arterial cone.

The ganglia are everywhere nestled in the lax cellular tissue of the pericardium, or its prolongations between the aorta and pulmonary artery; they penetrate into the partition between the auricles, never into the compact muscular bed. The ventricles have only a few isolated ganglia situated on the upper border of the arterial cone. The interventricular wall in particular is deprived of ganglia; it is this part of the wall which is the seat of the probable center of coordination which Gley and Sée have described after Kronecker and Schemey.

Sée concludes as follows:

1, The cardiac ganglia do not possess most of the functions which have been attributed to them; they certainly are not, as has been said, the vehicle which governs all and in all. They are slight organs of sensibility.

2, It is the cardiac muscle which is supreme; it is not only the automatic motor of the circulation. After various diminutions in its power, it may itself repair and compensate for all in overcoming resistances, in emptying the surcharged ventricles, and all this by the over work which the heart executes without having recourse to nervous influence.

3, The heart has in itself a dynamic reserve, and it is from this that its enormous power comes; the alterations of this organ should be taken in consideration when there is a local lesion, valvular or not, or a lesion of general origin. In one or the other case it is necessary to attend to the ultimate changes of texture rather than to have recourse to the common explanation of fatigue or dilatation of the heart, which cannot be denied.

4, Functions of the ganglia and nerves. The researches of His and Remberg, which have preceded those of Krehl and Martins, are still most explicit in certain points. The nerves of the heart, they say, do not develop with the heart, in the heart, but they proceed from the vagus nerves and from the sympathetic, to penetrate into the heart.

The cardiac ganglia are not sympathetic, and without doubt constitute centers of sensibility; they have no influence upon the arrest or upon the acceleration of the activity of the heart.

5, The cardiac muscle, on the contrary, works without any nervous excitation—it works automatically, and by its proper force; it is in the heart itself that it finds the impulses to its activity. The idea of a cardiac nervous center, itself automatic and motor, is therefore without foundadation.

A CASE OF BIRTH IN THE COFFIN AFTER MATERNAL DEATH.*

A case reported in (*Kreisphysikus zu Schlochan in Westpreussen*, Bd. 3, 1893) by Bleisch has caused the author, Dr. Moritz, to report one of similar character. The patient, aged 35, fell in labor on Sunday, June 19th, at 12 P. M. She was attended by a mid-wife who examined her while having severe contractions on the lap of the husband, but decided that she could not deliver the child. She was brought to the edge of the bed, the mid-wife again using various manipulations with no effect. While she distinctly felt the head, according to her statement, she was still unable to deliver. At 7 A. M. the patient died without having given birth to the child. The funeral took place three days later. Owing to a denunciation made by the gendarmes on the 5th of July, against the mid-wife as a causative factor in the death of the patient, the corpse was exhumed thirty-eight days after death and thirty-five after burial.

(*a*). *External appearance.* The female corpse 157 cm. long, well-supplied with fat; muscles well-developed. The skin is generally moist; whitish-gray color; face greenish-gray and swollen. The back, breast and abdomen greenish-gray and moist; and the inner sides of the thighs are soiled and grayish-red. The entire body is covered with blisters varying from the size of a pea to that of a

*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

hen's egg, and filled with decomposing gases and moisture. The odor was unpleasant; the upper and lower extremities freely movable. The eye-balls are softened and deeply retracted. The lips bluish-black and moist. The abdomen markedly distended.

Between the thighs lay the corpse of a male child, 2¾ kg. weight, 49 cm. long, and otherwise having the appearance of a fully-developed fetus. The child lay with its back upwards and the head near the knees of the mother, facing the left side of the mother. The cord was 47 cm. long, the size of a lead pencil in thickness; bluish-black in color and soft in consistence. The placenta was a bluish-black softened mass, and was almost entirely extruded from the vaginal tract. It was attached in one portion to the uterus, this latter being almost entirely inverted, and presented a large mass the size of a man's head. There was, therefore, total eversion of the uterus together with the vagina. The mucous membrane of both presented a smooth, slimy, reddish-gray surface with green spots, only at the place of attachment for the placenta was the surface rough and greenish-black. The labia majora were almost obliterated, and but traces of the labia minora could be detected between the former and the uterus.

(*b*). *Internal examination.* The cranial cavity: In opening the cavity the brain was found to have changed to a thin, reddish-gray, offensive mass.

The thoracic and abdominal cavity: The thoracic organs show nothing more than advanced stages of decomposition. The intestines contained in the abdominal cavity are markedly distended. The uterus cannot be found in the abdomen. The region where the uterus had been is marked by an oval opening 3 cm. long, and a-half cm. wide. On the margins of this opening are seen radial folds. Pressure upon the inverted uterus causes a discharge into the abdominal cavity of foul-smelling gases, which causes collapse of the organ and permits its reposition. The walls of the uterus are about 6 mm. in thickness, and uninjured. The conclusions arrived at are the following:

(1). The patient died previous to delivery. (2). It was not possible to determine definitely the cause of death by section alone, since decomposition had advanced too far. (3). It is impossible to tell if the patient died of hemorrhage, or if death was caused by a third person. The explanation for the birth in the coffin is that by generation of the decomposing gases the child was expelled from the uterus by mechanical pressure.

In closing the author states that in his case there was a certainty that the patient died before giving birth to the child, that at the time of burial, three days later, the child was still in the uterus, and, for that reason, *post-mortem* contractions could not be thought of; while on the other hand the presence of decomposing gases in the abdomen of the corpse were sufficient to cause the expulsion of a normally presenting fetus.—*Vierteljahr. f. gericht., Med.* January, 1893.

He Kept Grand Medicine.

In a Scotch village, where a young doctor had lately started practice, a workman had the misfortune to get his finger bruised badly in one of the mills. A doctor was sent for, and on properly dressing the finger the man nearly fainted. He was asked if he would take a little spirits to revive him. "Mon," he exclaimed with feeling, "that wud just be the very life o' me!" The doctor gave him a good glass, which he greedily swallowed, and on recovering his breath his first words were: "Well, doctor, I kin unco' little aboot yer skill; but, mon, ye keep grand medicine."—*Detroit Free Press.*

A Gentle Laxative.—A druggist received a ℞ some time since, which called for Hydrargyrum Chloridum Corrosivum in doses of five grains every two hours.

The startled druggist sent the prescription back by the small boy for correction. A few minutes later the white hat, curly locks and Apollo-like figure of Dr. Blank appeared, and the voice from under the hat spake thus:

"What's the matter with that? Don't you think I know what I mean? That prescription means what it says."

"Might I venture to ask, doctor, what effect you expect from the drug?"

"The effect," returned Blank, "will be that of a *gentle laxative*, merely a *gentle laxative!*" Druggist fainted.

BACTERIOLOGICAL NOTES.

A NEW METHOD OF STAINING THE CAPSULE ON THE PNEUMONIA GERM.

The demonstration of the capsule on the pneumonia germ is sometimes attained with considerable difficulty, while at others, it is brought out very nicely by the ordinary methods of staining. Welch (*Johns Hopkins Hospital Bulletin*, Dec., 1892) in an article on the etiology of acute labor pneumonia, has given a method for staining the capsule in those cases where it is not easily demonstrated by other methods. "Cover-glass specimens made from the tissues without water, are treated first with glacial acetic acid, which is at once allowed to drain off and is replaced (without washing in water) with aniline-oil gentian-violet solutions. The staining solution is repeatedly added to the surface of the cover-glass until all of the acid is displaced. If now the specimen is washed with a saturated aqueous solution of common salt, and is examined in this solution, it will be seen that both coccus and capsule are uniformly and deeply stained and cannot be differentiated. If water be used instead of saturated salt solution, the capsules are decolorized, sometimes only in part when they can be clearly recognized, but often completely, and they may entirely disappear by using weaker solutions of salt. It is possible in all cases to differentiate the capsule if it is present. The strength of the solution best adapted to different cases varies. Often the ordinary physiological solution suffices. A generally useful strength is 2 per cent. The specimens are to be examined in the salt solution. When mounted in balsam the capsules do not always remain distinct. The capsules may appear stained throughout or only their outer margin may be stained.

This method of staining was worked out on the supposition that the capsules are composed essentially of mucin which is precipitated by acetic acid and, when thus precipitated, is insoluble in concentrated salt solution and swells up in water. The chief disadvantages of this method are the difficulty of avoiding precipitates of the dye, and the alterations in the cells and other elements, but in difficult cases it will serve a useful turn, although less violent methods when applicable are to be preferred."

THE VIABILITY OF THE CHOLERA BACILLUS ON VARIOUS FOOD STUFFS, Etc.

Uffelmann (*Berliner Klin. Wochenschrift*, 1892, No. 48) records the results of his investigations on the viability of the cholera germ on a considerable number of food stuffs and other articles. These observations were made for the purpose of gaining information as to the danger of transferring these bacteria in the various articles such as milk or butter, meat, fish, bread, vegetables, fruits, etc. The results were as follows: In water the bacilli remained alive for from five to six days; in milk for about three days; on the surface of bread exposed to the air for about twenty-four hours; between the slices of bread kept moist, for about eight days; on cooked meat kept moist for eight days; in butter for three days; on an apple for four days; on paper for about thirty-six hours; on copper and silver coins for only ten minutes after they were dried; on dry clothing for four days, on moist linen for twelve days or longer. The dry skin of the hand preserved the germs alive for more than an hour after contamination.

Uffelmann also showed that house-flies were capable of infecting nutriment media with the comma bacillus two hours after walking over the dejecta of cholera patients. These observations show the importance of drying all infected material and the great value of air and sunshine in disinfecting after this disease.

ABSTRACTS.

ADMINISTRATION OF CHLOROFORM AND THE DANGERS INCIDENT THERETO.

J. D. Balfour, M. D., London, Ont., discussed the subject under two headings:

1. The dangers of chloroform, their causes and treatment.

2. How to avoid these dangers, *i. e.*, the best mode of administering chloroform.

For the sake of convenience we will speak of three stages in the administration of chloroform: (1) Excitement; (2) Complete anæsthesia or unconsciousness, and (3) Profound narcosis.

Dangers from the Lungs.—The first stage, or that of excitement, is the most dangerous, as more than half of the deaths from chloroform occur during this period before the operation is begun. One source of danger here is the liability of asphyxia from direct obstruction to the entrance of air into the lungs.

This condition may be caused by stertor, falling back of the tongue and depression of the epiglottis, spasm of the glottis, nasal obstruction, and also by the administrator, in not allowing sufficient air to enter to maintain the respiratory movement.

By stertor here is not meant the ordinary palatine stertor of snoring, but a stertor caused by the vibration of the epiglottidean folds which approximate so closely sometimes as to endanger life. This condition is recognized by the peculiar noise, the lividity of the patient's face, and from the fact that although the respiratory movements may continue, no air is entering the lungs, as may be ascertained by placing the hand over the patient's mouth.

Falling back of the tongue and depression of the epiglottis is another form of direct obstruction to the entrance of air, one, however, easily recognized and somewhat frequent, occuring several times in my experience. Both these forms of obstruction are removed by turning the patient on the side and drawing forward the tongue, this operation relieving the stertor in the larynx and raising the tongue and epiglottis. Spasm of the glottis is another form of direct obstruction; here the patient's face becomes livid, convulsive movements ensue, the respiratory movements continue, but no air enters the lungs. When this condition is present the chloroform must be stopped at once, and if breathing does not take place directly, artificial respiration should be kept up until the patient is restored. If sufficient air be not allowed to enter the lungs with the chloroform, the chloroform itself becomes a direct obstructing agent and causes asphyxia by excluding the air.

Dangers from the Heart in the First Stage.—By far the most important source of danger in this stage is the risk of an early, sudden and sometimes fatal syncope. As to its cause authorities differ widely.

It seems sometimes to be induced by the act of vomiting, but whatever the cause, this much is certain, that the first effect of chloroform is to stimulate the higher nerve centres in the medulla, so that their functions are disturbed; they are intoxicated, so to speak, and while they are in this condition syncope is liable to occur.

Its advent is sudden, the face becomes pale, a few short shallow breaths, and the heart stops beating, although the respiratory movements may continue. It is, however, a comfort to know that syncope at this stage is not nearly so dangerous as when it occurs later on during returning consciousness.

If the patient's head be lowered, and artificial respiration at once resorted to, it will generally, some say always, restore the patient.

Nitrite of amyl is of service here, especially if the syncope be caused by a reflex inhibition of the heart.

As stated before, there is great danger as long as the stage of excitement lasts. Now, the stage of excitement will not cease until the reflexes are abolished, and as chloroform is given for the express purpose of paralyzing these centres, clearly the safest method is to keep up a sufficient and continuous administration from the first until this effect is produced.

It is a dangerous procedure to remit

chloroform in this stage. I would like to emphasize the statement that I hold the best way to administer chloroform in the first stage is to commence cautiously, and then to continue with a hand neither timid nor reckless.

We will now enter the second stage, that of complete anæsthesia or unconsciousness.

If the chloroform is now continued without abatement dangerous symptoms will soon be seen. The pupil becomes suddenly fully dilated and fixed, the globes prominent, the respiratory movements weak, irregular and sighing, the heart beats irregular and feeble, the face very pale; the commencement of these symptoms marks the beginning of the third stage, or that of profound narcosis.

I stated that the stage of excitement was the most dangerous period in the administration of chloroform. But almost equally dangerous, if unfortunately it becomes necessary to enter it, and sometimes it is necessary, is the stage of profound narcosis.

It is clear, therefore, that the object of the administrator during the operation should be to avoid these two danger points; on the one hand not to allow the patient to so far recover as to allow the reflexes to operate, and on the other to be careful not to endanger the centres of respiration and circulation by too much chloroform. But this is not always easily accomplished.

The best way, however, to guard against the first danger is to frequently examine the eye, and any movement the patient may make, for symptoms of returning consciousness and reflex action.

If the pupil be contracted and the conjunctiva insensible to touch there is generally no danger from this source. But remember, no single sign can be trusted. To prevent danger from the second source, the administrator should watch particularly the respiratory movements and observe the countenance, and I have no fault to find with those who look after the pulse too. Should respiration become weak, irregular or sighing, the countenance pallid, or the pulse irregular, rapid and feeble, the chloroform must be stopped at once. If during a prolonged operation signs of heart failure develop, anticipate danger by stopping the chloroform and completing the operation with ether.

Third Stage.—Notwithstanding all precautions, death sometimes occurs in this stage, and is then the result of direct paralysis of the centres of respiration and circulation, or both, by the chloroform. If, from heart failure, the face becomes very pale, the breathing weak, short and catching, the heart ceases to beat and the patient is in a state of syncope, (and all this sometimes with little or no warning,) stop the chloroform, lower the patient's head immediately, and if the heart does not at once resume its functions, commence artificial respiration. Hypodermic injections of digitalin and strychnia is the best accessory treatment.

If asphyxia threatens, the face becomes livid, the respiratory movements irregular and spasmodic, convulsive movements are seen and the breathing stops, while the heart continues to beat flutteringly. Here again chloroform must be stopped and artificial respiration immediately resorted to, care being taken to keep the patient's head low. Digitalis and strychnia are also very important adjuncts in completing the patient's recovery. I have seen a touch of a battery excite breathing after artificial respiration had been kept up for some seconds.

In any case of imminent danger, whether the heart or lungs be at fault, the patient's head being immediately lowered, artificial respiration should at once be commenced. Additional aids, such as those already mentioned, should also be practiced. It seems to me however, that the majority of deaths that occur in this stage are attributable to the combined effects of the chloroform on both the circulatory and respiratory centres, and not to either one separately, because the depressed condition of the circulation or respiration caused by the chloroform each aggravate the other on account of their mutual dependence upon each other.

Suppose the operation over. There is still a dangerous period of returning consciousness, during which the reflex centres are recovering their normal condition, and the connection between the heart and the cardiac centre is being re-established. If death occurs now it will be from syncope, and is most likely caused by impressions sent by the now distressed heart along the depressor filament of the vagus to the vaso-constrictor centre inhibiting its action and causing it to release its hold on all the vascular areas.

This is a much more dangerous form of syncope than that which occurs in the first stage, because by this time the heart is weakened by the action of the chloroform and its own intrinsic ganglia, and when it does occur death is almost certain to ensue.

The methods for the treatment of syncope before indicated must, of course, be assiduously employed.

Before leaving the subject of danger I wish to refer to the classes of cases in which death ensues in one, two, three or more days after the operation.

I have seen two cases, one in particular where the patient appeared to be in good condition after the operation and everything indicated ultimate success, but the pulse became gradually weaker, more irregular and rapid, in spite of all treatment, until death occurred at the end of thirty-six hours. Is death to be charged to chloroform? Yes.

One very important quality of the heart is elasticity, by means of which it is enabled to dilate when occasion requires and again resume its normal size when the emergency is passed. Now, a constant result of the administration of chloroform is dilatation of the heart, and it is clear that if its elasticity be impaired by any cause whatever, as by fatty degeneration, it may not be able to recover itself after the dilatation caused by the chloroform, and is consequently unable to sustain life long, although the patient may live through the operation.

If this be true, it follows that a fatty heart or a weak dilated one is a contra-indication to the use of chloroform; the Hyderabad Commission to the contrary. But here a great clinical difficulty meets us, that is the almost impossibility of recognizing this condition of the heart beforehand.

I now come to the second heading, "Administration of Chloroform."

Preparation of the Patient.—It is a well-known fact that chloroform is best administered on an empty stomach. No solid food should therefore be allowed for five or six hours before the operation, but a cup of soup or broth may be given with advantage two or three hours before. If a weak heart be suspected, strychnia and digitalis should be given for a couple of days before the operation. This treatment was first suggested by Professor Wood, of Philadelphia. The strychnia antidotes the chloroform and the digitalis tones up the heart. Other eminent authorities recommend alcohol before administering chloroform. Alcohol is not unlike chloroform in its physiological action, and the use of it is held to lessen the quantity of chloroform required. It is certainly of value in the case of habitual drunkards.

Suppose the patient now on the table. Don't commence the chloroform until everything and everybody is ready for the operation. If there is any waiting to be done let the operator be the one to do it. See that there are no false teeth in the mouth, nothing tight about the neck, chest or abdomen, don't allow two or three pillows, which is the usual request, place the head on a level with the trunk, or lower; this guards against syncope.

The patient may lie on the back or side, I prefer the side. This position allows the saliva and mucous to run out of the mouth instead of down the throat, and prevents the tongue from falling back. When the patient is under the influence of the anæsthetic he can be placed in any position the surgeon requires.

The slight struggling, which is sometimes seen, is no indication to stop the chloroform, some of the assistants can control the patient's movements. Vomiting is sometimes troublesome at this period. It is a reflex action, and the best cure for it is to push the chloroform until the vomiting centre is paralyzed. If it does occur, see that all solid particles are cleaned from the mouth and nostrils, and satisfy yourself that none has found its way into the trachea. Vomiting, however, often gives the most trouble after the operation, and I know of nothing that can be relied on to relieve this very distressing symptom. If an opportunity offers during a prolonged operation I would allow the patient to approach consciousness, this tests his powers of reviving and rests the heart.

The last point I will touch upon is in relation to the apparatus used in the administration, and I will at once state my preference for a Junker's Inhaler. This instrument is so arranged as to regulate the amount of chloroform taken at all times, it assures the admission of plenty of air and requires very little chloroform,

it is a simple instrument, and would be safe in the hands of the most inexperienced; but any apparatus is dangerous if it leads the operator to think that by using it he may relax his personal attention to the patient.

In conclusion I would say that I consider every one who administers chloroform should make himself aware of its dangers and should bear in mind the indications which announce these dangers. Every administration of chloroform is in itself a serious procedure and should only be undertaken with a feeling of responsibility, and with the consciousness that the life of the patient is in the hands of the administrator, and should occupy his constant and undivided attention.

An experienced and observant person will instinctively gather from numerous indications the approach of danger, and in the hands of such a person, the risks incident to the use of chloroform will be reduced to a minimum, but I do not believe that the danger factor can be wholly eliminated.—*Montreal Medical Journal.*

THE CUTANEOUS CICATRICES OF SYPHILIS.

Dr. Hyde, of Chicago, in speaking of "The Cutaneous Cicatrices of Syphilis" in the *Journal of Cutaneous and Genito-Urinary Diseases*, for March, 1893, states that from a diagnostic point of view, the value of the recognition of cicatures upon the body surface can readily be appreciated. The evidence thus furnished as to a prior surgical or accidental traumatism, or a previously active tuberculosis, zoster, or other cutaneous malady, may be both instructive and portentous.

This is more strikingly true of the cicatrices which are due to a disease which has had not merely a significant past, but may also have a formidable future. Such a disease is syphilis, whose persistent marking of the bodily surface may be of prime importance in determining the exact character of an epileptiform seizure, a pulmonary hemorrhage, a sudden hemiplegia, or an insidious albuminuria.

All properly trained physicians are more or less familiar with the typical cutaneous cicatrices produced by the degenerations and ulcerations of syphilis. They have no great difficulty in recognizing by inspection their cyclical outlines, their usually exact definition, their slight depression below the general level of the unaffected tissue about them, their generally superficial location, their freedom from deep attachments, their hue varying from the deepest chocolate to the dead whiteness of other ancient scars, and their smooth, even at times, lustrous surface. Usually, also, it is not very difficult to recognize the combinations formed after multiplication, and what may be termed coalescence of these typical cicatrices, producing thus outlines suggestive of the figure of "8," the letter "S," the horse-shoe, the kidney, and that arrangement of smaller, about arcs of the larger size similar to the devices of the jeweller whose gems are set about a brooch. It is rather with a view to recognizing the modifications of these type-scars, as they occur in different regions of the body that the present study has been attempted.

The cicatrices of syphilis on the scalp are usually obscure on casual inspection, by reason of the piliary growth with which they are surrounded and which must be removed in order to ensure careful observation. They may be loosely arranged in two groups, the one including the relatively large scars, the other those of smaller size; the former usually single and rarely more than double; the latter often but not necessarily multiple.

The single large scalp cicatrices of syphilis are rare and commonly occupy the greater part of the surface above the calvarium with the center approximately near the vertex. They betray the classical features mentioned above in their circular and oval outline, their superficial character, and their slight depression below the general level of the scalp. Very rarely indeed, however, are they to any degree pigmented, their color, when they are at all colored, being of the deep red empurpled hue of a more or less recent hæmatostasis. As a rule, after even a few weeks of healing, they are of a dirty

whitish or grayish hue. They are usually destitute of hairs save that here and there a single filament or a scanty wisp projects from the smooth or scaling plane of the atrophic disk. The greater part or but a small portion of these platter or palm-sized scars may be composite, the elementary contained disk being plainly of the order of the larger and containing circle, viz., a small coin-sized or finger-nail-sized depression within a depression, defined, rounded, and having either a smooth central area or one that is of the sort described above as scaling. This well-known condition in syphilitic scars, suggests the flaking of the thin scale of mica as that material appears in some articles of manufacture.

The smaller cicatrices of syphilis upon the scalp may be single, but are usually multiple, rarely exceeding six to ten in number. They vary in size from a split pea to a finger-nail, and are probably in numercial proportion to the lesions just described as the deep pustulo-crustaceous lesions of ecthymatous grade from which they generally take their origin, stand to the rarer gummata of the scalp. On account of the fact that they are usually hidden from the eye of the observer by long hairs of the scalp and are thus much less readily scrutinized than the large scars already described; the attention of the physician is rarely attracted to them after cicatrization is completed.

The syphilitic cicatrices of the face may be considered in three categories: First, the larger, few or single and asymmetrical; second, those which are small, few, and also, as a rule, asymmetrical; third, those which are numerous, small and symmetrical. These are named early in the order of frequency of occurrence.

In the first and second classes may be included the scars fairly classical as to type, occupying one side of the brow, near the scalp; those of exceedingly irregular outline with jagged edges found on one side of the root of the nose; and those occasionally seen on one cheek, the temple and just below the ear. The third group includes an interesting and significant class of lesions, usually originating in a copious crop of resolving or ulcerating tubercles.

Here the skin of the entire face may be symmetrically involved, or, what is more often noted, the upper segment only. The scars are numerous, flattened, closely set, defined, and very superficial, being remarkably smoothed away a few months after repair has been completed.

Upon the several regions of the neck, the trunk, and the hips, typical cicatrices due to syphilis occur in nearly the following order as to location: Above and below the clavicles, near the acromial extremity, over the scapular regions and the sternum, and upon the inferior segment of the abdomen and the lumbar region. They are more rarely seen in the axillæ about the iliac crests, and in the ano-genital region. In that last named, scars are more often due to venereal lesions of non-syphilitic origin, and the same may be said of the large majority of scars implicating the groins.

It is now well known that in both sexes and in the enormous mass of patients, chancre of the ano-genital region, precisely as in the case of extra-genital chancres, leaves no scars after healing. The cicatrices which are in rare instances left as sequelæ of these scleroses, result usually from irritative or traumatic accidents. Glancing at the upper and lower extremities together, we find a decided predominance of scars in the lower, due to the continued observance of the erect posture for hours at a time; a marked tendency to spare the hands and feet as distinguished from the arms, fore-arms, thighs and legs; a greater tendency to the clustering of scars about the elbows than about the knees, due to the effects of pressure in the trades; a preponderance of lesions upon the leg, as contrasted with the the thigh; an equal participation of arm and fore-arm in the ravages of the disease; a larger number of lesions upon the anterior as distinguished from the posterior faces of the legs, and the external as distinguished from the internal faces of the arms. The rarity of syphilitic scars upon the palms, soles, fingers, and toes, even though, as is not rare, the neighboring wrists and inner aspects of the ankles be involved, is a conspicuous fact. Syphilitic scars of the hands and feet are rarely symmetrical, affect the hands more often than the feet, and are found as a rule more distinctly outlined upon the dorsum of the hand thence spreading over the hypothenar eminence, rather than in the center of the palmar area.

Every practitioner is at times confronted with the question whether scars of the lower extremities, especially those spread over the anterior faces of the legs, are of syphilitic origin, or due to the common forms of engorgement and ulceration, not rarely associated with an obstinate eczema, indirectly caused by varicose veins of the part. In cases it is really difficult to decide between the two, but usually one may, on close inspection, discover finger-nail-sized circular and superficial, or even larger scars of characteristic syphilitic appearance, at one point or other of the large area distorted with cicatrization and discolored with pigment. The larger, very formidable, irregular, and deeply and extensively pigmented patches are usually not syphilitic, but due to the vascular mischief. The existence of ribbed, corded, seamed, or puckered patches, with remnants of varices in the neighborhood, is always significant of the latter.

In most of the doubtful cases the key to the diagnosis is to be sought not so much in the pigment that actually is present, as in that which has been. In a male subject of average weight and size, a wholly decolorized syphilitic scar of the leg, the decolorization process being just completed, points backward to an infection from four to eight years before, and a healing of the precedent ulcer between two and four years previously. It is probable, though not certain, that the decolorization is completed somewhat sooner in persons of a blonde type, and in women, the latter fact due to the less demand made upon their sex in the observance of the erect posture. This slow inevitable, but steadily progressive clearing up of the color, is characteristic of the syphilitic leg, while the steady continuance, for long periods of time, of the vascular disturbance which lies at the root of the eczemato-varicose extremity, produces the final picture of deep inky-black or chocolate-tinted pigmentation, spreading over half or more of the limb, and presenting, after years of trouble, no such amelioration of symptoms as in the infectious disease.

Signs of Shock.

Dr. Kottman, of Berlin, says that the most important signs of shock are weakness of the heart, faint respiration, skin pale and covered with cold sweat, face drawn out, sunken eyes, and livid lips; consciousness remains; sensibility reduced. Shock appears when certain very sensitive organs, as testicles, bones, or bowels have been subjected to contusion or other serious injury. Shock may occur from hemorrhage, and is then associated with functional changes in the body of which there are no post-mortem evidences. Two theories are advanced: the first defines shock as a reflex paralysis of the heart and vessels, caused by the trauma; according to the second, the injury causes, reflexly, exhaustion of the medulla oblongata and the spinal cord, and, as the nerve centres are affected, there is debility of heart and respiration. The fever which accompanies shock is, according to Dr. Kottman, the consequence of trauma. The substances causing the fever are here chemical and not bacterial, are freed from normal tissue matter by the injury, and include hemoglobin, fibrin ferment, and similar elements. He objects to confounding shock with debility due to hemorrhage. In the latter there is rapid pulse, quick, deep panting respiration. In shock the patient presents the evidences of cerebral irritation, noises in the ears, affected vision, palpitation, yawning, and even convulsions. In severe cases of shock the usual remedies—alcohol, ether, caffeine and camphor—may be used without relief. The similarity in the appearances resulting from hemorrhage and from shock induced Kottman to use salt-water transfusion in four cases with good results. By the neuro-pathological theory the explanation is that the effect of the salt solution is to stimulate the centres with which it comes in contact, and with increased arterial pressure the central nervous system would receive more blood and recuperate more quickly. If the hemo-pathological theory is accepted, the explanation is even more simple: the salt-water would fill the empty heart and vessels, and the hydraulic requirements would be fulfilled while the blood in the distended abdominal vessels was being restored to the circulation. Patients suffering from shock often require severe operations, especially the amputation of members. Experience shows that chloroform anæsthesia in these cases is attended with unusual danger; the danger is less with ether.—*Amer. Jour. Med. Soc.*

CURRENT LITERATURE REVIEWED.

THE AMERICAN JOURNAL OF OBSTETRICS for April. Dr. Franklin H. Martin contributes an article on

Vaginal Ligation of a Portion of the Broad Ligaments for Uterine Tumors or Hemorrhage.

The operation proposed consists in "the ligation of more or less of the broad ligament with its vessels and nerves, the extent of the ligation depending on the result sought, from a simple ligation of the base of the ligament including the uterine arteries and branches of both sides without opening the peritoneum, to a complete ligation of the ligament of one side, including both uterine and ovarian arteries, with partial ligation of the opposite ligament without opening the peritoneal cavity, if possible, but by doing so if necessary." "The results sought in the operation are, first, checking of hemorrhages of the uterus by cutting off blood channels; and second, changing the nutrition of the uterus by interfering with its nerve supply, with the idea of modifying neoplasms which depend upon that organ for their nourishment and growth." The operation is performed with the patient in the lithotomy position, an incision being made in each lateral vaginal fornix, and a ligature applied by means of a curved needle with the finger as a guide. The conditions for which the author proposes applying the procedure are: "1. Acute hemorrhage of the cervix from all acute or chronic causes, which cannot be readily controlled by milder methods, as [*a*], rupture of the cervix in child-birth, by operation or by any other cause; [*b*], cancer of the cervix. 2. Hemorrhage from the body of the uterus as a result of abnormal growths: [*a*], fibromyomata; [*b*], sarcoma; [*c*], carcinomata; [*d*], intractable hemorrhagic endometritis. 3. For the purpose of changing the nutrition of myofibromatous tumors so that they will shrink in size, and, when of small dimensions, disappear altogether." The paper includes the report of two cases in which the operation was performed successfully, and is illustrated by cuts showing the blood supply of the uterus, and also the various steps of the operation.

Dr. Egbert H. Grandin, in a paper entitled "The Relative value of certain Obstetrical Operations," discusses the positions of Embryotomy, Cæsarean Section and Symphysiotomy in modern obstetrics, and urges the necessity of a thorough knowledge of the capacity and shape of the pelvis of every pregnant woman in order that the attendant may be prepared to render operative aid if such be demanded.

Dr. J. Clifton Edgar contributes an article on

Embryotomy,

in which the statistics of the operation are thoroughly discussed. He divides the subject into the two heads—embryotomy on the dead, and on the living fœtus. His conclusions are:

A. Embryotomy upon the dead fœtus. Embryotomy upon the dead fœtus is demanded when, the *absolute* indication for Cæsarean section being absent, the extraction of the fœtus undiminished in size would increase the dangers to the mother.

[*a*], This indication includes moderate degrees of pelvic contraction, malpresentations and positions, deformities of the fœtus, and slight obstruction in the soft parts.

[*b*], In markedly contracted pelves, with a transverse diameter at the inlet of at least three inches and a conjugata vera little under two and five-eighths inches, embryotomy, in combination, if need be, with pubiotomy (embryo-pubiotomy), other things being equal, will be indicated.

[*c*], In instances where the conjugata vera is much under two and five-eighths inches, when labor is obstructed by fixed pelvic tumor, extensive exostosis, advanced cancer of the cervix, celiotomy is to be preferred whether the fœtus be dead or alive.

[*d*], Where the mother's condition demands rapid delivery, and the absolute indication for Cæsarean section is absent.

B. Embryotomy upon the living fœtus. [*a*], Embryotomy upon the living fœtus is indicated during labor whenever the *relative indication* exists and the physical signs indicate that the life of the fœtus is practically lost.

[*b*], In certain rare instances, also, when the condition of the mother is such (temperature, pulse, dangerous thinning of the lower uterine segment), whether from repeated unsuccessful attempts at delivery or prolonged labor, as to render embryotomy by far the safer operation.

[*c*], In obstructed labor due to monstrosities.

The article is illustrated by cuts of various forms of cranioclasts.

Dr. Robert A. Murray in an article on

The Limitations of Cæsarean Section

reviews the Porro, improved Cæsarean and Symphysiotomy operations, giving the statistics of each. In regard to symphysiotomy he says, "It must, however, be exceptional that a child of seven and a half pounds can be delivered in a pelvis of even two and three-eighths alive by pubiotomy, and he is inclined to believe that in the hands of American operators it will find its best scope in moderate deformities of the justo-minor type of three and a half to four inches conjugate, or in bad presentations where the child's head is large, and thus save from craniotomy, more especially as the forceps may be tried first." Craniotomy, he thinks, will be confined to cases where the fœtus is dead, though it should also be performed in certain cases where the child is alive, as in hydrocephalus, also in the case of locked twins that have been mismanaged; but the child should always if possible, be given a chance. His conclusions are:

1. Cæsarean section should be done always

where the conjugata vera is below two and three-quarter inches.

2. It should be done in the Roberts or Nagele pelvis with marked deformity, or where there is fixation of one or both sacro-iliac synchondroses from diseases—cases in which pubiotomy would be ineffective.

3. It is the best operation with diameters even larger than two and three-quarter inches, when the child's head is large and could not possibly pass a living child if pubiotomy were done.

4. Where tumors or exostoses are present the Cæsarean section or the Porro operation is the best.

5. In cases of cancer of the cervix it should be chosen rather than pubiotomy, and should be done before labor sets in, so that no sepsis result.

6. The size of the child's head, in moderate contractions at the superior strait, will oftentimes be the determining factor as to whether an elective Cæsarean section or a pubiotomy will be the best operation.

Dr. Henry C. Coe discusses

Cancer of the Cervix Uteri Complicating Pregnancy,

reporting a case. The author believes that, under some circumstances, incipient epithelioma actually favors conception in those who have been long sterile, by determining an unusual flow of blood to the uterus and thus increasing the receptivity of the endometrium. Pregnancy is not likely to be interrupted unless the disease extends as high as the os internum; though on this point there is some difference of opinion. When the disease is confined to one lip, spontaneous delivery is the rule, the prognosis for both mother and child being better when the posterior lip is effected. When the entire *portio* is diseased spontaneous delivery is less common, and there is always immediate risk of deep multiple lacerations of the cervix, or rupture of the uterus, and subsequent danger of hemorrhage and septicæmia.

In regard to the diagnosis, it is important to note that the significance of the irregular hemorrhages during pregnancy may be misinterpreted, being referred to placenta previa, erosion of the cervix, etc., rather than to malignant disease. The absence of a foul discharge, or impairment of the general health, is, of course, no criterion.

As to treatment, if the patient is seen for the first time, when less than three months pregnant, he would not hesitate, in the interests of the mother, to either amputate the cervix at once or, which he thinks is the better plan, to first induce abortion and subsequently to operate. After the third month, with the patient under close observation, and treatment with astringents and antiseptics, she ought to be brought safely through pregnancy unless the disease extends rapidly and involves the peri-uterine tissues. If it does there is no object in operating, since the the mother will not be cured and the child will be sacrificed. The cautious use of the sharp spoon and the thermo-cautery around, not in, the cervical canal may serve to arrest its progress until term. The author believes that if there is cicatricial stenosis, the mother runs almost as much risk from premature delivery as from labor at term. If the disease is limited, dilatation of the os may proceed normally, patience and non-interference being required. If there is a complete cicatricial ring it is better to use Barnes' bags at the outset rather than allow the patient to become exhausted by ineffectual efforts. Multiple incisions into the cervix can be made if necessary, though there is some risk if there is much friable vascular tissue and the peri-uterine tissues or vesico-vaginal septum are infiltrated. Statistics favor the application of forceps rather than version. Craniotomy does not seem to have been successful. Cæsarean section should be performed two or three weeks before term, as in this way exhaustion and septic infection of the mother and the premature death of the child are avoided. No time should be lost in operating on the uterus after the puerperium. In the case reported by the author, the pregnancy was allowed to go to term. Subsequently the author performed a vaginal hysterectomy with success.

Dr. William Keiller contributes a scholarly article on

Axis-traction Forceps

showing clearly the mechanical principles that underlie their use. The author champions especially the form of traction forceps devised by Dr. Milne Murray, of Edinburgh, which is essentially the Tarnier rods applied to the long Simpson forceps. The author states that the forceps are especially useful in guarding against tears of the pelvic floor, as by their traction principle they compel the head to follow the axis of the vagina and cause it to be born in a position of flexion, instead of extension taking place at the vaginal outlet and causing lacerations. The instrument is equally valuable in the high applications as in the low. The paper is illustrated by diagrams and cuts of instruments.

Dr. Mary A. Dixon Jones, in a paper on "Colpo-hysterectomy for Malignant Disease," reports five cases in which there was no return of the disease after its removal, although in some cases several years have elapsed. These few cases, she says, "proved beyond a doubt that, by a timely operation, malignant disease may be eradicated from the system." The literature and statistics of the subject are reviewed in the paper, which will be continued in the next issue.

Dr. Albert S. Ashmead, in an interesting article entitled "Kangawiana," describes the obstetric practice and procedures among the Japanese, as established by the family of Kangawa, the hereditary obstetricians of Japan.

Dr. William H. Wathen contributes a paper on "Umbilical and Ventral Hernia," which was read before the Southern Surgical and Gynecological Association at Louisville, November, 1892, and which has appeared in abstract in THE MEDICAL AND SURGICAL REPORTER for Dec. 3rd, 1892, page 890.

Dr. Carl Beck reports a case of "Ectopic Pregnancy Twice in the same Patient, the

Second Time Complicated by Intestinal Obstruction." The patient recovered from the second operation.

Dr. Thomas C. Smith reports a "Sarcoma of the Uterus previous to Puberty." Such an occurrence is extremely rare and the diagnosis is proved by microscopical examination of the specimen by an expert.

Dr. I. S. Stone contributes a "Note on Drainage after Laparotomy." He says: "I have not lost a patient after laparotomy when drainage was not used, but the case reported, and two others which gave some anxiety, have caused me to urge more care in these cases where we do not suspect danger, and to insist upon the use of drainage in every case where any fluid is found in the appendages. I have not seen any bad results from the use of the drainage tube, although it does not always answer the desired purpose, and I have frequently used the gauze drain with signal advantage.

[In the case reported it was necessary to re-open the abdomen for the purpose of drainage.—ED.]

Dr. Howard A. Kelly advocates the use of glass trocars for tapping large ovarian cysts. The instrument, which is figured in the communication, differs from that in ordinary use only in being made of glass, on which account Dr. Kelly thinks it can be more easily kept clean.

This issue closes with a memoral notice of the late Dr. Charles Pratt Strong, of Boston.

THE KANSAS CITY MEDICAL INDEX.

Dr. J. C. McClintock, in a clinical lecture, reports "A Secondary Laparotomy" which was performed for the release of adhesions: A case of "Talipes" associated with deformity of both hands. Three of the fingers were without a third phalanx, while the thumb on the right hand had three phalanges and two fingers had small growths projecting from the phalangeal articulation. The talipes was treated by the simple application of a plaster-of-Paris splint, the foot being semi-flexed and rotated outward while the plaster was wet and so held until the plaster had set: The third case reported was one in which a girl of six months, had swallowed a jack-stone six weeks previously. The foreign body was detected in the œsophagus by the finger and removed: The fourth case was one of uterine polypi: The fifth case was one of

Perforation of the Abdominal Walls by a Cow's Horn.

An examination showed that the horn had entered two inches below and to the left of the umbilicus, and had emerged two inches above the right anterior superior spinous process of the ilium, tearing up an irregular triangular shaped flap, with the apex of the triangle almost down to the middle of Poupart's ligament. The muscles and peritoneum were perforated below the umbilicus, the perforation extending outward to the right, making a tear 2½ inches in length.

Warm water was poured over the wound, washing the omentum, 8 inches of which protruded from the peritoneal tear. The patient was suffering profound shock, but rallied when the flaps were covered with towels wrung out of hot water, The peritoneum, muscles and fascia were closed with a continuous silk suture cut short. Then the rough edges of the superficial structures were brought together with interruptured sutures, a piece of gauze inserted into the lower corner for drainage and a bandage applied. The patient recovered.

Dr. J. S. Poyner describes the "Removal of the Secundines with the Capiat." After reviewing the difficulties usually encountered in cleaning out a uterus after abortion, the author proceeds to describe an instrument of his own invention which he has named the capiat and which is designed to remove the debris from the uterus. The instrument consists of a tube nine or ten inches long, through which extends a rod having a set of six springs fitted at its distal end, so arranged as to protrude when the tube is withdrawn. When the rod is rotated one-third of a turn, the springs are distributed around in equal spaces, forming a closed basket, which will have enclosed any substance which may have been in the cavity of the uterus.

Dr. James H. Etheridge presents a "Report of Laparotomies Performed" which has already been noticed in the MEDICAL AND SURGICAL REPORTER for March 25th, 1893, page 473.

Dr. H. C. Dalton reports

Some Cases of Laparotomy for Stab Wounds.

The cases are:

I. Stab wound of the gall-bladder and stomach. Laparotomy, recovery.

II. Stab wound of the liver. Laparotomy, recovery.

III. Stab wound of the liver. Laparotomy, death. In these two cases the wounds in the liver were closed with heavy catgut sutures.

IV. Stab wounds of liver and stomach Laparotomy, recovery.

The author states that he has been gradually coming to the conclusion that surgeons irrigate too much in laparotomies for recent injuries. He believes that even when the gut, bladder or other viscera is found cut or shot, and blood and a small quantity of urine or fæces extravasated, better results would be gotten by trusting to the sponge. Of course if a large amount of fæces or urine be found, irrigation would be imperatively demanded. He thinks that septic material is often forced among the intestinal coils by the irrigation, thus increasing the danger. He is also quite skeptical as to the good results of drainage in recent abdominal injuries, and thinks it should never be used save when sepsis is suspected or when the intestines have been handled for a considerable length of time. A safe rule is that the necessity which calls for irrigation calls also for drainage.

Mr. Jonathan Hutchinson, F. R. C. S. London, Eng., contributes a short sketch on the

Treatment of Gonorrhœa.

He always uses abortive measures and

mostly succeeds. He advises, first, an injection of solution of chloride of zinc, two grains to the ounce; next, sandal-wood oil capsules; and lastly, a purgative night dose, with bromide of potassium. The injection is used three times a day, the capsules (ten or twenty minims) taken three times a day. The ingredients of the night dose are three drachms of Epsom salts and a half drachm of bromide of potassium. He believes it is the action of the last named in preventing congestion of the parts that makes the abortive measures safe. If the case is very acute he sometimes prescribes tartar emetic, or tincture of aconite, but it is seldom that these are necessary. If the patient is well purged, there is no risk in the abortive treatment from the day he comes under treatment. He would as soon think of delaying to use local measures in gonorrhœa, as he should in purulent ophthalmia.

Dr. Emory Lanphear describes

A New and Rapid Method for Hysterectomy.

After antiseptic preparation of the patient, an incision is made through the abdominal wall close to the middle line, four inches or more in length. The ovary and tube of one side are caught and pulled into the opening, and a clamp applied to their outer side; but as close to the uterine body as possible; a heavy catgut ligature is passed through the broad ligament, tied, and a cut made between the ligature and the clamp; this suturing may be continued downward into the pelvis as far as convenient. The other side is then treated in the same manner, when the uterus, with its attached tubes and ovaries, may readily be brought up into the opening. The fundus is now tilted backward, a cut made transversely across the uterus, through the peritoneum, and separation of bladder from womb accomplished methodically and completely. This line of incision should be made just behind the vesico-uterine fold, which is easily recognized by touch; the dissection is done partly by fingers and partly with some blunt instrument, (I prefer the end of my blunt-pointed curved scissors used closed) the bladder being pressed away little by little, below and in front. When the region of the os tincæ is reached one finger is slipped into the vagina, the exact location determined, and the scissors pushed through the mucous membrane; this opening is extended across the anterior surface of the cervix as in the initial step of vaginal hysterectomy, save that the cut is made from above instead of below. The uterus now being pulled strongly forward a similar separation of uterus from rectum is made, but not nearly so much care is required as the distance is short and perforation of the rectum not easy.

When the opening through the cul-de-sac of Douglas is complete the sides may be ligated and the uterus cut away. As thus performed supravaginal hysterectomy is scarcely more serious than vaginal, the cut through the abdominal wall adding but an insignificant amount of danger to the operation. In cases where some special reason exists for so doing the peritoneum on the posterior wall of the bladder may be united to that of the anterior wall of the rectum by a few catgut stitches.

Dr. A. H. Cordier considers the subject of "Puerperal Sepsis," reporting a case where laparotomy was performed without success.

THE CANADIAN PRACTITIONER

for March is wholly taken up with the study of Cholera in its different bearings.

Dr. George M. Sternberg contributes an article on the

Bacteriology of Cholera and Methods of Disinfection.

He says, the spirillum grows readily in the presence of oxygen, and also in the absence of oxygen, as it must do to thrive in the intestines. It does not form spores and is consequently easily destroyed. Milk is a very favorable medium for its growth, but it will not grow in acid media. There is sufficient pabulum for its growth in ordinary river or well water, but in water which is rich in organic pabulum, and consequently contains nnmerous other common organisms, it dies out as these take the precedence; so it would apparently multiply more rapidly in water not containing a large amount of organic material than it would in sewage. Koch found in his earliest investigation that this spirillum grows readily on moist linen, or the soiled clothing of patients. Ten minutes exposure to a temperature of 60° C.=140° F.—may be relied on for the destruction of the spirillum. Another very important point is that they are quickly destroyed by desiccation. As a means of disinfection he recommends steam at 100° C., carbolic acid, chloride of lime and æration. An agent which is very valuable and very important is recently slacked lime.

Dr. Albert L. Gihon considers the "Hygiene of Cholera," and Dr. A. C. Abbott the "Prophylactic Measures against Asiatic Cholera," describing the measures that should be taken during the prevalence of an epidemic.

Dr. Henry Hartshone, in a paper on "Cholera and its Migrations," describes the course taken by the various epidemics.

Dr. Roberts Bartholow discusses

The Treatment of Cholera.

Of all the remedies proposed for the arrest of the diarrhœa not one has done so much good, in the writer's experience, as sulphuric acid. It is usual, and generally best, to combine some opium with it according to the following formulæ:

℞ Acid sulphuric aromat.....5v.
Tinct. opii deodorat.....5iij.
M. Sig. From ten to twenty drops every hour or two in sufficient water.

℞ Acid sulphuric dil.....5ii.
Tinct. opii camph.....5xiij.
M. Sig. A teaspoonful every half hour in water.

The remedies of which the most has been expected were salol and creolin, but the practical outcome has not been so fortunate as the promoters hoped for and predicted. From his observations of the effects of naph-

thalin in the various forms of diarrhœa, he is inclined to believe that this remedy promises well. As under ordinary circumstances it affects the whole intestinal canal, deorderizes the stools and restrains the peristaltic movements, it should under the different conditions of a true cholera attack accomplish similar results. Naphthalin may be combined with bismuth and carbolic acid, and opium may enter into the combination, if necessary. The use of calomel is also reviewed by the writer. He then proceeds to consider the subject of Enteroclysis, or irrigation of the intestine with a solution of tannic acid, giving the opinions of various observers. His opinion is that it is not of much value, since "it is difficult to understand how irrigation of the large intestine can modify a morbid process going on in the small intestine, for nothing is more certain than that an injected fluid does not pass beyond the ileo-cæcal valve." The infusion of a saline solution into the veins and hypodermatoclysis, or the injection of a saline solution under the skin, are recommended for the treatment of the algid stage, with the advantage on the side of the intra-venous infusion. External heat should also be applied in the shape of hot bricks, hot baths, etc. For the muscular cramps he advocates the use of chloral hydrate combined with morphia and atropia. They should be given hypodermically; the chloral in ten grain doses by itself, and the morphia and atropia together, in the dose of from $\frac{1}{8}$ to $\frac{1}{4}$ grain of morphia and from $\frac{1}{120}$ to $\frac{1}{60}$ grain of atropia. The attempt to feed a cholera patient when the digestive tract is undergoing desquamation is worse than useless. Beef tea is only harmful. A little cold milk or wine-whey may be given as the state of the stomach will permit. Thirst is excessive and the indulgence in water drinking is likely to excite vomiting, but the advantages due to the free use of water more than counterbalance the injury from a renewal or increase of the vomiting. Carbonic acid water may agree better than simple water. As the renal functions are suspended, or nearly so, and, as during the typhoid stage the restoration of these functions are of the first importance, the free use of diluents may prove, in a high degree, useful.

The last article in the series is "A Clinical Study of Eleven Cases of Asiatic Cholera treated by Hypodermoclysis and Enteroclysis," by Dr. Judson Daland and has already been noticed in THE MEDICAL AND SURGICAL REPORTER for January 14th, 1893, page 74.

Under Clinical Notes, Dr. Charles B. Langford reports "A Case of Compound Fracture of the Skull followed by Suppuration." Dr. W. B. Thistle reports "A Case of Hystero-epilepsy in a Child of Three," and Dr. J. W. E. Brown presents the notes of a "Case of Aortic Aneurism."

SELECTED FORMULÆ.

Frosted Feet, Etc.

Dr. W. S. Cline sends the following prescription, which he says "is worth its weight in gold" (*Va. Med. Mo.*). It will relieve "frosted feet" as promptly as morphia will pain:

℞ Carbolic acid.....ʒj
Tinct. iodine.....ʒij.
Tannic Acid.....ʒj.
Simple ointment.....ʒiv.

M. Sig. Apply twice a day.

The following ointment is recommended by Prof. Keen in cases of erysipelas:

℞ Ungt. zinci oxidi.....ʒij.
Hydrarg. chlorid. mitis.....ʒij.

M. Ft. unguentum. Apply to parts.

Sulphur Iodide in Acne.

[HILLES—*Deut. Med. Woch.*]

OINTMENT.

℞ Sulphur iodide.....0.6 gm. (10 grs.)
Lanolin.....30.0 gms. (1 oz.)

Apply twice daily, after washing the parts with hot water.

To Remove Wax from the Ear.

Dr. A. P. Brubaker advises:

℞ Potassi carbonatis.....grs. xxx.
Glycerini.....fl. ʒiij.
Aquæ destillat.....fl. ʒiv.

M. Sig. To be injected into the ear.

For Erysipelas.

Take of:

℞ Icthyol.....4 dr.
Lanoline.....4 dr.

Make an ounce ointment, and apply to the affected part, then cover it with salicylic acid gauze.

—*Poplar Med. Monthly.*

Tubercular Abscesses.

Tubercular abscesses are recommended by Billroth to be treated as follows:

℞ Iodoform.....ʒij.
Glycerini.....ʒijss.

M. Sig. Inject into the abscess cavity after evacuating the pus.

Mucous Patches in the Mouth.

A certain amount of relief may be afforded by the frequent use of a gargle and mouth-wash, as follows (*Med. Bull.*):

℞ Acidi borici..... ʒij.
Glycerini..... ʒij.
Tr. myrrh..... ʒj.
Aq. rosæ..... q. s. ad ʒviij.

M.

Or,

℞ Sodii biborat..... ʒjss.
Sodii bicarb..... gr. xxx.
Thymol..... gr. iij.
Glycerini..... ʒj.
Aq. laurocerasi..... q. s. ad ʒiv.

M.

Local Anæsthesia.

For minor operations the following, used as a spray, is recommended :

℞ Mentholi.....part i.
Chloroformi.....part x.
Ætheris fort.....parts xv.
M. Ft. solut.

Dentifrices for Mercurial Stomatitis.

Dr. Leonte (*Spitalul*, No. 23, 1892), recommends as a dentifrice in mercurial stomatitis the following :

℞ Powdered salol, Boric acid } aa.....20 gms. (℥v.)
Saccharine, Menthol } aa..... 20 cgms. (grs. iij.)

Brush the teeth twice a day with this mixture upon a soft brush.

Treatment of Croup.

Prof. N. S. Davis says all the indications for treatment in croup, in the mild or superficial form of the disease, can be filled by the administration of :

℞ Syr. ipecac..... ℥ix.
Syr. scillae comp..... ℥iss.
Tinct. opii camph..... ℥ii.
M. Sig.—Half teaspoonful every three or four hours

—Indiana Medical Journal.

Intestinal Fluxes, etc.

According to Dr. J. Zach Taylor, (*Times and Register*) this dangerous disease, as well as its allied disorders of the bowels, will readily yield to the following formula which, after a trial of over twenty years, he regards as almost a specific.

℞ Pulv. Opii.
Pulv. Plumbi Acetat. aa..... gr. xxx.
Camphor gum.
Extract Capsicum Fld..... gtt. x.
Buchwood Creasote..... gtt. v.
Alcohol q. s. to dissolve camphor.
M. Ft. Pil. No. xxx.
Sig. One to six pills daily, according to urgency of case.

Cystitis.

Professor Bangs treats successfully, cases of cystitis, by washing out the bladder with a boro-salicylic solution and injecting twice daily one to three drachms of the following solution.

℞ Iodoformi..... ℥ij.
Glycerini, Mucil. Acaciæ..... āā. ℥fs.
Aquae ad..... ℥viii.

M, Rub up the iodoform with the mucilage, then add glycerine and water.
Sig. Use as above.

Ointment for Barber's Itch.

During the inflammatory stage the following should be applied :

℞ Ichthyol..... gr. xx.
Salicylic acid..... gr. x.
Oleate of mercury (10 per cent)... ℥ij.
Oil of lavender..... miij.
Lanoline..... ℥vj.
Mix.
This to be kept constantly applied to the affected parts.

—Chem. and Drug.

Tonic Laxative.

Dr. Clinton Cushing in his gynecological clinic makes frequent use of the following prescription :

℞ Ext. casc. sag ..... ℥j.
Ext. nucis vom.....
Ext. hyoscyam..... aa ℥j.
Ol. anisi..... gtt. xv.
M.
Sig. A small teaspoonful at bedtime.

—Occ. Med. Times.

For Bronchial Asthma.

℞ Potassii iodidi..... ℥ij.
Tincturae scillae..... ℥j.
Tincturae stramonii..... ℥ij.
Extracti glycyrrhizae liquidi..... ℥iij.
Spiritus etheris..... ℥j.
Aquae..... ad ℥viij.
M.
Sig. One tablespoonful in a teaspoonful of water every six hours.

—Ex.

For Irritable Cough.

℞ Acidi hydrocyanici diluti..... ℥iss.
Morphinae acetatis..... gr. iss.
Mucilaginis acaciae..... ℥j.
Syrupi pruni virginianae..... ℥iv.
Aquam..... ad ℥vj.
Misce et fiat mistura.
A teaspoonful to be sipped every four or six hours.

—The Practitioner.

Seborrhea of the Scalp.

Paschkis washes the scalp with an alkaline solution containing soap and bicarbonate of soda. As a lotion he uses :

℞ Resorcin..... ℥i.
Alcohol..... ℥v.
Castor oil..... ℥ss.

When the seborrhea has disappeared, he uses friction, with some tonic, such as:

℞ Sulphate of quinine..... gr. xv.
Alcohol..... ℥ii.
Eau de Cologne..... ℥i.
S. For external use.

—Semaine Med.

Pomade for Psoriasis of Scalp.

Besnier gives the following :

℞ Potash soap.....
Vaselin..... aa ℥v.
Ichthyol..... ℥ss.
Salicylic ac.....
Pyrogallic acid..... aa gr. xx.
M.
Sig. To be applied every day to the plaques of psoriasis. If much irritation is created, suspend the application temporarily.

—Ex.

Dilute Nitrohydrochloric Acid

Is best given along with a little hydrochloric acid, according to Dr. Lockhart Gillespie. In treating that form of headache which Dr. Lauder Brunton has shown to be relieved by the administration of acids—namely, when the pain is frontal and close above the frontal sinuses—the two acids in small quantity, added to a moderate dose of antipyrin or other analgesic, subdue the pain more rapidly than any of these drugs separately. *—Chem. and Drug.*

CALENDAR OF MEDICAL SOCIETIES.

Association.	President.	Secretary.	Place and Time.
NATIONAL.			
Am. Academy	J. E. Emerson, Detroit	C. McIntyre, Easton, Pa	Milwaukee, June 5, 1893.
Am. Anatomists			
Am. Andrological	E. R. Palmer, Louisville	J. A. Fordyce, New York	Harrogate,Tenn.,June 20,'93.
Am. Climatological	G. T. Jackson, New York	G. H. Fox, New, York	Milwaukee, Sept. 5, 1893.
Am. Dermatological			
Am. Gynecological	T. Parvin, Philadelphia	H. C. Coe	Philadelphia, May 12, 1893.
Am. Health Resort			
Am. Laryngological	C. H. Knight, New York	M. J. Asch, New York	New York, May, 1893.
Am. Medical	Hunter MaGuire Richmond	W. B. Atkinson, Philadelphia	Milwaukee, June 6, 1893.
Am. Medico-Psychol'	J. Curwin, Warren, Pa	H. M. Hurd, Baltimore	Chicago.
Am. Neurological			
Am. Obstetricians	L. S. McMurtry, Louisville	W. W. Potter, Buffalo	Detroit, June 1.
Am. Ophthalmological	S. B. St. John, Hartford	H. Derby, Boston	New London, Conn., July 20.
Am. Orthopedic	J. J. Steele, Louisville	J. Ridlon, Chicago	St. Louis, Sept. 19.
Am. Otological			
Am. Pædiatric			
Am. Physiological			
Am. Physicians	A. L. Loomis, New York	H. Hun, Albany	Washington, May 30.
Am. Public Health			
Am. RailwaySurgeons	C. W. P. Brock, Richmond	E. R. Lewis, Kansas City	Omaha, June.
Am. Rhinological	E. K. Lewis, Indianapolis	R. S. Knode, Omaha	Indianapolis, October, 1893.
Am. Surgical			
Mississippi Valley	R. S. Sutton, Pittsburg	C. A. L. Fitzpatrick	Indianapolis, Oct. 12, 1893.
Pan-Am. Congress	W. Pepper, Philadelphia	C. A. L. Reed, Cincinnati	Washington, Sept. 5, 1893.
STATE.			
Alabama	J. T. Searcy, Tuscoloosa	T. A. Means, Huntsville	Tuscaloosa, April 8.
Arizona	J. Miller, Phoenix	J. T. Green, Tucson	
Arkansas	J. T. Jelks, Hot Springs	L. P. Gibson, Little Rock	Little Rock, June 2, 1893.
California	W. E. Taylor, San Francisco.	W. W. Kerr, San Francisco	San Francisco, April 18,1893.
Colorado	W. E. Wilson, Denver	H. S. Lobinger, Denver	Denver, June 15, 1893.
Connecticut	C. B. Newton, Stafford Spr'gs	N. E. Worden, Bridgeport	Hartford, May 24, 1893.
Dakota, North	A. P. Rounceveille, Larim're	D. S. Moore, Jamestown	Jamestown, May 25, 1893.
Dakota, South	A. L. Peterman, Parker	R. C. Warne, Mitchell	Huron, June 4, 1893.
Delaware	E. W. Cooper, Camden	W. C. Pierce, Wilmington	Rehoboth, June 13, 1893.
Florida	S. Stringer, Brookville	J. H. Douglass, Jacksonville.	Jacksonville, April 4, 1893.
Georgia	A. H. Smith, Hawkinsville	D. H. Howell, Atlanta	Americus, April 21, 1893.
Idaho			
Illinois	E. F. Ingals, Chicago.	D. W. Graham, Chicago	Chicago, May 16, 1893.
Indiana	G. F. Beasley, Lafayette	E. S. Elder, Indianapolis	Indianapolis, May 9, 1893.
Indian Ty	D. Bagley, Vinita	H. B. Smith, McAlester	Atoka, June 5, 1893.
Iowa	C. M. Hobby, Iowa City	C. S. Chase, Waterloo	DesMoines, May 18.
Kansas	F. F. Dickman, Ft. Scott	G. C. Purdue, Wichita	Topeka, May, 1893.
Kentucky	A. Dixon, Henderson	Steele Bailey, Stanford	Frankfort, May 3, 1893.
Louisana	S. E. Archenard, N. Orleans.	P. B. McCutcheon, N. Orlea's	New Orleans, May 9, 1893.
Maine	A. H. Mitchell, Brunswick	C. D. Smith, Portland	Portland, June 14, 1893.
Maryland	L. McLane Tiffany, Balti're	G. L. Taneyhill, Baltimore	Baltimore, April 25.
Massachusetts	J. C. White, Boston	F. W. Goss, Roxbury	Boston, June 13, 1893.
Michigan	G. V. Chamberlain, Flint	C. W. Hitchcock, Detroit	Muskegon, May 11, 1893.
Minnesota	A. W. Abbott, Minneapolis	C. B. Wetherle, St. Paul	Minneapolis, June 21.
Mississippi	W. Kriger, Vicksburg	H. H. Haralson, Meridian	Jackson, April 18.
Missouri	A. B. Miller, Macon	F. R. Fry, St. Louis	Sedalia, June 30.
Montana	W. Trearcy, Helena	Dr. Ellis, Butte	Great Falls, April 19.
Nebraska	M. L. Hildreth, Lyons	G. W. Wilkinson, Omaha	Nebraska City, May, 1893.
Nevada			
New Hampshire	M. W. Russell, Concord	G. P. Conn, Concord	Concord, June 20.
New Jersey	G. T. Welsh, Passaic	W. Pierson, Orange	Spring Lake, June, 1893.
New Mexico		M. F. Desmaris, Las Vegas	
N. Y. Association	S. W. McLeod, New York	E. D. Ferguson, Troy	New York, Oct. 19, 1893.
N. Y. Society	L. S. Pilcher, Brooklyn	F. C. Curtis, Albany	February 7, 1893.
North Carolina	J. W. NcNeill, Fayetteville	R. B. Jewett, Wilmington	Wilmington, May 7.
Ohio	D. P. Allen, Cleveland	T. V. Fitzpatrick, Cincinnatti	Put-in-Bay.
Oklahoma	C. B. Bradford	Loss Walker, Oklah'a City	
Oregon	W. E. Rinehart	C. H. Wheeler, Portland	
Pennsylvania	H. L. Orth, Harrisburg	W. B. Atkinson, Philadelphia	Williamsport, May 16, 1893.
Rhode Island	W. H. Palmer, Providence	W. R. White, Providence	Providence, June 2.
South Carolina	W. H. Narlen, Anderson	W. P. Porcher, Charlestown	Sumter, April 3, 1893.
Tennessee	C. W. Beaumont, Clarksville.	D. E. Nelson, Chatanooga	Nashville, April 11, 1893.
Texas	J. W. Osborne, Cleburne	H. A. Weston, Galveston	Galveston, May 2, 1893.
Utah			
Vermont	J. W. Jenne, St. Louis	D. C. Hawley, Burlington	Montpelier, Oct. 14, 1893.
Virginia	H. M. Nash, Norfolk	L. B. Edwards, Richmond	Charlottesville, Oct., 1893.
Washington	N. F. Essig, Spokane	O. G. Shaver, Tacoma	
West Virginia	D. P. Morgan, Clarksburg	D. Mayer, Charlestown	Parkersburg, June, 1893.
Wisconsin	B. T. Phillips, Menominee	C. S. Sheldon, Madison	Milwaukee, May 3, 1893.
Wyoming			

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ORIGINAL ARTICLES.

EDWIN MARECHAL, M.D., Mobile, Ala.
Multiple Neuritis. 637

COMMUNICATIONS.

WM. H. PARISH, M.D.
Criminal Abortion. 644

LORENZO D. BULETTE, of the Philadelphia Bar.
The Law of Criminal Abortion in Pennsylvania. . 650

WM. W. PORTER, ESQ.
A Discussion of the Legal Aspect of Criminal Abortion. 655

SOCIETY REPORTS.

Philadelphia County Medical Society. 661

EDITORIAL

Extra-Uterine Pregnancy. 666

TRANSLATIONS 668

ABSTRACTS 670

THE LIBRARY TABLE. 672

CURRENT LITERATURE REVIEWED . . . 673

PERISCOPE

MEDICINE 676

OBSTETRICS 676

NATURAL AND ARTIFICIAL DRYNESS IN CHAMPAGNE.

Natural dryness and the smallest percentage of alcohol constitute the purest and most wholesome champagne, as compared with artificial and spirituous dryness, which admits of a higher percentage of sugar in the wine, while giving a dryer but false taste, as is the case with several of the so-called "brut" wines. By chemical analysis of Prof. R. Ogden Doremus, G. H. Mumm's Extra Dry contains, in a marked degree, less alcohol than other prominent brands, and he recommends it, not only for its purity, but as the most wholesome champagne. These properties and its remarkable quality and natural dryness have made it the most popular, as is evidenced by Custom House statistics of 1892, showing G. H. Mumm's Extra Dry imports to be 75,880 cases, being more than one-fifth of the entire importation and over 9,000 cases more than of any other brand.

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ORIGINAL ARTICLES.

MULTIPLE NEURITIS.

EDWIN L. MARECHAL, M. D., Mobile, Ala.

In 1864 Duménil, of Rouen, published the following case which was the first in which an autopsy verified the existence of paralysis, due to degeneration of the peripheral nerves without spinal lesion:

"A tailor, aged 61, after suffering from prickling in the toes for two weeks, was suddenly taken with weakness in the left arm and right leg, and a few days later by the same paresis in the left leg. Within five days he could not stand or walk. The paralyzed feet hung flaccid and were totally paralyzed; the thighs could be moved freely. Anæsthesia was found on the right sole and calf, and on the left foot and outer side of the leg. In the muscles of the hands and forearms considerable atrophy with paralysis, developed. Faradic contractibility in the paralyzed muscles was abolished. He complained of a painful numbness in the paralyzed limbs up to the knees, and involving the hands. No improvement; death in four and one-half months.

Autopsy: Spinal cord and nerve roots normal. The finer nerve branches in the legs and hands were degenerated, only a small number of nerve fibres being found. Single fibres showed no continuous myelin sheath, but this was segmented and granular. There was an increase of connective tissue, and many fat cells in the nerves."

Previous to the publication of this case, the existence of diseased conditions of the peripheral nerves had been suspected as furnishing a rational explanation of many motor, sensory and trophic disturbances, but there were no reliable observations confirming such suspicions. Graves, the eminent clinician, had said that "all writers upon nervous diseases devoted all their inquiries in search of functional changes to the cerebrum, cerebellum or spinal marrow, forgetting that the causes may be resident in the nervous cords themselves, or their extremities." Mangus Huss, Lancereaux and Duchenne had given accurate description of alcoholic nervous symptoms, misinterpreting, however, their true nature and ascribing them to central lesion. Duchenne recorded many cases which he termed "general subacute ascending spinal paralysis," characterized by sensory, motor and trophic disturbances. In his opinion these cases were due to a gradually ascending lesion in the spinal cord, and this was in accord with the consensus of professional opinion when Duménil's observations demonstrated the origin in a widespread inflammation of the peripheral nerves. Subsequently the investigations of Leyden, Eichorst, Joffroy, and Grainger Stewart in Europe, and Allen Starr and Hun in this country, confirmed the opinion of Duménil and established for peripheral neuritis a distinct nosological position upon which many motor, sensory and trophic troubles are frequently dependent. To Leyden, probably more than to any one else, we are indebted for its differentation from other conditions with which it had been confounded, for in investigating atrophic paralysis he found

that with the exception of the disease under consideration, they were all due to either degeneration of the anterior gray horns of the cord, or of the motor cranial nerve nuclei; while multiple neuritis was a disease due to degeneration of the peripheral nerves without involvment of the cord; a disease characterized by atrophic paralysis, associated with sensory symptoms, tenderness in the nerves, and generally terminating in recovery.

The lesions found in multiple neuritis have been closely studied by Eichorst, Leyden, Oppenheim and Strümpell, and occur with almost absolute uniformity in every case. They are those of degenerative inflammation, in fact, of "secondary degeneration" so ably elucidated by Waller. Early in the disease the nerve is swollen from infiltration of its substance by lymphoid cells. Sometimes its consistency is changed from breaking down of its histological elements. Later, as the result of cell proliferation and pressure within the sheath, the myelin becomes broken up into a granular *dèbris*, and the axis cylinder, the functional element of the nerve, undergoes a solution of continuity which unfits it for the performance of its functions—to conduct nerve impulses. But, even before this disintegration of the axis cylinder occurs, there may be complete paralysis, with loss of electrical irritability; since, as Gowers suggests, the myelin, from its liquid consistence, diffuses pressure equally upon each inter-nodal portion of the axis cylinder, and at the same time probably has an insulating action, on account of its diseased condition may render the nerve unequal to the task of transmitting nerve impulses. The active increase in quantity and swollen and homogeneous condition of the myelin, subsequently becoming split up into segments, together with the growth and fission of the nuclei and the pressure of the liquid protoplasm inside the sheath of Schwann, consequent upon the inflammatory process going on, causes at first an enlargement of the nerve, but later on, when disintegration of its tissue has advanced to its full limit, the granular *dèbris* which is formed becomes absorbed, leaving the sheath empty and collapsed. Hence, when the inflammation has been widespread, the nerves may present every variety of lesion, from simple inflammatory infiltration to complete destruction of the axis cylinders with empty and collapsed sheaths.

It is still an undecided question among pathologists as to whether the inflammation originates with greater frequency in the parenchyma or connective tissue, and while it is conceded by all that it may be interstital or parenchymatous, as circumstances may determine, we are assured that after the process has advanced to complete degeneration no distinctive differences can be observed in the lesions of either variety. The changes which I have detailed most frequently occur in the peripheral terminations of the nerves, but the nerve trunks may be involved at their distal extremities. As a rule, none of these lesions are found in the spinal nerve roots. The brain, in some instances, more especially those of alcoholic origin, presents evidences of meningeal inflammation.

Degeneration of the muscles proceeds *pari passu* with the nerve changes. Following the fatty degeneration new connective tissue takes the place of the proper muscle fibre. Starr says, "that when no regeneration takes place a mass of connective tissue replaces the muscle containing a few muscular elements."

The process of regeneration is necessarily a slow one, and time required for its completion is entirely dependent upon the extent of the degeneration that has occurred. Where this is slight it may be rapid, and cases are on record where complete recovery, with restoration of nerve integrity, has been observed at the end of the second month. Generally, however, it is a slow process, and most cases require from six months to two years before the functions of the diseased nerves are re-established. In the absence of positive experimental data upon which to base an opinion it is inferred that the process of regeneration is that which follows experimental degeneration.

The occurrences of multiple neuritis under such a contrariety of circumstances has suggested to observers the advisability of classification of cases in accordance with their apparent causation, and while such a classification is desirable it must be confessed that, as yet, our knowledge is too inexact to justify an arbitrary division of that character, for in many cases, notwithstanding the most careful investigation, the pathogenic element eludes our

search. Nevertheless, for convenience of description, I shall group cases in three classes, leaving out as of no practical importance to us the nervous symptoms which occur in *beriberi* and leprosy and which have been ascribed to neuritis.

1. Cases due to alcohol, lead, arsenic, etc.

2. Those cases which occur in the course of infectious diseases and which are presumed to owe their origin to the direct action of the specific element of these diseases upon the nervous system.

3. Cases due to cold, exposure, dampness and to agencies whose influence is as yet unascertained.

1. Observers in different parts of the world have confirmed the views first advanced by Jackson in 1822, that alcohol is by far the most prolific cause of multiple neuritis. Whether or not this is due to the direct toxic action of alcohol upon the nervous system is not known. It is especially frequent among the higher classes whose nervous system are highly developed and whose lives are inactive. An indolent life, with daily indulgence in whiskey or brandy, creates a liability to this special form or nervous disorder. Women suffer more frequently than men. Alcohol, as Starr suggests, appears to exert its toxic effect in men by the production of cerebral disturbances, while in women it expends its force in the causation of nerve degeneration. Gowers had eight cases of typical alcoholic neuritis in women and none in men. Alcoholic paralysis, although apparently sudden in its onset, is usually preceded by a history of gastric disturbance with a train of nervous phenomena consisting of insomnia, tremor and unsteadiness of gait. Sometimes the cases assume from the beginning the tabetic type inducing the condition to which Déjérine has given the name pseudo-tabes.

When an attack of multiple neuritis is sudden in its onset it is marked by decided febrile reaction, the temperature ranging from 103° to 104°. This may persist for several days, and has a disposition to subside spontaneously, with no tendency to return. The fever may, however, become continuous, the temperature not being so high, the pulse ranging from 90 to 100. A pulse continuously over 100, with a tendency to become irregular, indicates involvement of the pneumogastrics and is of omnious significance. The mind is generally undisturbed, but in some cases there is active delirium and in others the patient becomes the victim of delusions. One noticeable feature in these cases is the disposition patients exhibit to deceive their medical attendant, resorting to the silliest subterfuges and even boldly lying, to evade the watchful supervision of those around him.

The sensory symptoms are co-incident with the beginning of the disease, and persist during its whole course. Numbness, tingling and fornication usher in the attack, and the great discomfort which they induce is frequently what impels the patient to seek medical advice. Paræsthesia begins in the hands and feet, and extends to the elbows and knees. There may be burning, boring, tearing sensations, but they usually subside as the disease advances. Pain is a frequent accompaniment, and may be so severe as to require opium for its relief. It is usually moderate and not continuous. Indeed it is rarely as aggravating as the lightning pains of tabes dorsalis. Along the course of the affected nerves and in the muscles which they supply there is great tenderness, and this, in some cases, is so marked as to prevent the use of electricity for diagnostic purposes. Should the tenderness and pain be referred to the joints with coexistent œdema it may be difficult to differentiate it from acute articular rheumatism. There are hyperæsthesia and anæsthesia, that is to say, there may be localized spots of anæsthesia while the limbs are markedly hyperæsthetic. Tactile sense is frequently lost, and the transmission of pain and temperature may be delayed. Sometimes the muscle sense is so delayed as to induce incöordination and ataxia, thereby misleading the attendant as to the nature of the case. The disturbances of sensation in exceptional instances involve the whole extremities and even the trunk, but they are usually limited to the hands and feet. Lowenfeld has recorded a case in which facial tingling with anæsthesia occurred. The special senses are rarely affected, although in a few cases optic neuritis has occurred, and in some disturbances of hearing have been observed.

The paralysis so characteristic of the disease manifests itself in the beginning

by weakness, and a feeling of fatigue on exertion. This is rapid in its progress, two or three weeks only elapsing before the patient is helpless. The onset of the motor symptoms, however, may be less sudden, and there may not be entire loss of power of walking for several months. In some cases at the end of only a few days the limbs may be completely paralyzed. The distribution of the paralysis is not uniform for it may develop in muscles supplied by a single nerve and slowly invade those supplied by other nerves. It may invade the feet first and then progressively advance until all four limbs are affected. It is more marked in the extensors of the hands and flexors of the feet, producing wrist-drop and foot-drop. The muscles moving the knees and elbows are rarely affected. When the disease has become complete, total paralysis of all the muscles below the knees and elbows exists. Rarely the muscles of the arms, thighs, and trunk, become involved. Only in rare and fatal cases are the muscles of deglutition affected. Brazelius has published a case in which not only all the facial branches of the facial nerves were paralyzed, but also the muscles of the neck, of the trunk, and extremities, were paretic. All the muscles paralyzed are relaxed and flabby, and they may or may not lose their mechanical irritability. As a general rule the tendon reflexes are absent, although in exceptional instances they have been exaggerated. Sometimes there is simple diminution of electrical excitability, and a strong current is required to produce contractions. Often all faradic excitability is lost, and the muscles react only in response to a strong galvanic current. When the degeneration is complete, there is reaction of degeneration. Still, in a few cases, the normal reaction is found, the negative pole producing stronger contractions than the positive. Finally, atrophy and contraction of the muscles occur, leading to grave deformities.

An œdematous condition of the affected limbs sometimes occurs. The surface becomes smooth and shiny, the skin appearing as if stretched to its full extent over the underlying structures, the natural creases and lines being obliterated.

I. M., aged 23, a constant drinker, and, though not given to sprees, had not been careful as to the quantity or quality of whiskey drank. Had been exposed to cold and wet, but this could not have produced present illness, inasmuch as trouble did not follow early enough after exposure. In June, 1885, while returning home from a distance, he noticed, for the first time, a peculiar feeling under and about the great toe of the right foot, as if it were being lifted off. The same night the paræsthesia extended to the rest of the foot, and the next day sensation was similarly disturbed in the other foot. This travelled symetrically up the lower extremities until it reached the waist, shading off generally from half-way up the thighs. Two months after the beginning of the disturbance, the patient was conscious of steadily increasing loss of muscular power, and of atrophy. Until October, 1886, he was unable to be around. Since then he has been confined to the house, locomotion being accomplished with difficulty. During the time has suffered with muscular pain of increasing severity.

Condition when first seen March, 1887: His case has been pronounced locomotor ataxia, and such he believes it to be. Muscles of the thighs and legs atrophied and flabby. Extremities cold and clammy. Every motion of the lower extremities is accompanied with pain. Respiration rapid and abdominal. Tactile sense much impaired, that is, he is not able to designate within two to four inches of where an object is placed in contact with his body. Sometimes not conscious of contact at all. Temperature sense impaired. There is no sensibility to faradic current until half way up the thighs, and then only to a strong current. Galvanic current showed R. D., in the muscles of the lower extremities and to a slight degree in the extensors of the wrists and fingers. Pressure on the muscles of the lower extremities causes intense pain. There is a painful and annoying sensation about the scrotum "as if being torn away." Patella reflex exaggerated. Eyesight not as good as formerly, but the Argyl-Robertson pupil phenomenon is not present. Cöordination good. Is constantly in pain, and from broken rest is weak and emaciated. Locomotion is only accomplished with difficulty by grasping objects for support, or with the aid of attendants. Sexual desire gone. Diagnosis: Multiple neuritis. Recovery (Star-

kel, St. Louis *Courier of Medicine,* August, 1887).

II. A., book-keeper, aged——, had led an inactive life and was an habitual secret drinker, inbibing large quantities of liquor. Six months prior to present illness began to suffer with depraved appetite and other evidences of digestive disturbance. These increased and there supervened symptoms of delirium tremens with aggravating pain in the left arm and leg. At the expiration of five months he was forced from his condition to give up work. He became very moody and reticent. A few days after this the left arm and leg became paralyzed. There was great tenderness over the nerves. Wrist-drop and foot-drop marked. His speech became so affected that he could not speak so that he could be understood, every effort to do so resulting in a hissing sound, due to an involvement of the nerves governing the muscles of phonation in the degenerative process. The mind was much disturbed, and while his attention could be secured he soon lapsed into a condition of apathy. There was great restlessness, with picking at the bedclothes. He would sleep quietly for a few minutes, and this would be interrupted by delusions. The bowels were constipated. The bladder at first acted normally, but it became necessary toward the termination of the case to use the catheter. Deglutition was very difficult. The vital functions became more and more depressed and the pulse become imperceptible at the wrist. The temperature, which at first was 101°, now became subnormal. The surface became cold and clammy, and death occurred from involvement of the vagus, (Drs. Ketchum and Toxey, report to the Mobile Medical Society).[1]

Cases of paralysis from poisoning by arsenic and lead have been so frequently reported, and are so fully described in the text-books that I deem it unnecessary to lengthen this paper with their consideration, except to emphasize the importance of recognizing the influence of these agents in the causation of peripheral neuritis.

2. There are a number of infectious diseases which are occasionally followed by nerve disturbances eventuating in paralysis, as: Diphtheria, scarlet fever, typhoid fever, tuberculosis, etc. The invasion of the nervous system by the morbific agent which caused the original disease usually manifests itself during the period of convalescence. Apprehending the true nature of the trouble, we will be able from the distribution of the paralysis to estimate with something like certainty its gravity and foresee its termination.

Diphtheritic paralysis is familiar to every practitioner of experience, and no doubt some of us have seen paralysis, with atrophy, following the other diseases mentioned.

Paralysis due to malaria is by no means infrequent; I have had several cases of this character in my own practice, and Holt, Westphal and Albutt have reported similar cases, therefore, I need not consume time in its description.

The influence of tuberculosis has been variously estimated, and while I know of no positively reliable observations confirming the suspicion that it is sometimes the principal causative factor in multiple neuritis, there is at least a marked coincidence, for in the cases reported by Joffroy, Eisenlohr, Strümpell, Webber, and Müller, phthisis pre-existed.

The influence of syphilis is not positively known, but the consensus of opinion among neurologists is that it is never the cause of multiple neuritis. Syphilitic neoplasms may invade the tract of a nerve and by pressure create a localized neuritis, but no cases have, as yet, been reported which would justify us in assuming that a widespread inflammation of the peripheral nerves is ever one of its manifestations.

3. In some cases after the most searching investigation no cause has been ascertained, but they occurred under such circumstances as to justify the assumption that they were due to cold, damp, exposure, fatigue and bad hygienic surroundings. How these act as causative factors in impressing the nervous system so profoundly, we do not know, and can only hope that future researchers will remove the obscurity which now surrounds them.

III. A young girl, 17 years of age, who had previously enjoyed good health, but who had been subjected to considerable fatigue from watching, hard work, and constant walking, was taken, in May, 1886, with chills, sweats, and headache. On the 25th of the same month there en-

1 These two cases are reported as typical cases of multiple nueritis. I have notes of seven cases occurring in my own practice, but they are not complete, hence do not utilize them.

sued numbness, anæsthesia, and paresis in both legs, and also in the three fingers at the ulnar side of both hands. May 31, there was paresis of the left facial nerve. During the following week the paresis increased in extent and intensity so that not only all the facial branches of the facial nerve were found paralyzed, but also all the muscles of the neck, of the trunk, and of the extremities, were markedly paretic. The bladder and rectum were normal. There were no contractures, no spasms. On the 14th day of the disease the temperature was 104° F. On the 18th day there was an amelioration, anæsthesia diminished, but was replaced by hyperæsthesia. On June 27th there was complete paralysis of all the branches of the facial nerve, and considerable paresis of those of the neck, trunk, and extremities. There were anæsthesia of the skin of the face and lower extremities, pain on pressure of the nerve-trunks, and in the muscles of the face and extremities, and slight atrophy of the muscles of the hands. All the reflexes were abolished. R. D. was total in the face, and partial in the extremities. There was no fever. Intelligence was good. After a few days the anæsthesia subsided. July 8th, the facial paralysis was decidedly better. July 13th, the abdominal reflexes, and July 27th, the plantar reflexes returned. On July 23rd she could take a few steps. September 29th, recovery complete, the patient walking without difficulty.—*Brazelius*, *Nordiskt Medicinkst Arkiv.*, 1887.

IV. H. G., aged 16 years, of good physique, and up to present illness enjoyed good health. Family history negative. While returning from his daily labor, that of a saw-mill hand, was caught in a shower of rain, wetting his clothes. On reaching home he failed to change his clothes but went to bed, and slept soundly all night. Upon rising next morning he detected a feeling of numbness and tingling in both feet. This progressively advanced to the knees. At the same time he suffered from intense pain in the limbs. On the third day his hands, wrists and arms became similarly affected. I saw him on the sixth day, and his condition was as follows: He stands with great difficulty. When he attempts to walk he staggers, not, however, from cerebral disturbance, the incöordination being due to paresis of the muscles of the legs. There is hyperæsthesia from the feet to the knees, although there are circumscribed points of anæsthesia in the same surface area. The grasp is feeble. The reflexes are absent. Romberg's symptom is not present. On the seventh day the paralysis was complete from the toes to the knees, and from the fingers to the elbows; and there was great weakness in the muscles of the thighs and arms. Wrist-drop and foot-drop marked. There was no response to the faradic current. The galvanic current showed R. D. complete in the feet, legs, hands and forearms. On the eighteenth day the paralysis being complete in the extremities, the inflammation invaded the trunk and the muscles of respiration became involved, and death ensued on the nineteenth day of the disease.

In arriving at a diagnosis in multiple neuritis, it is necessary to exclude those forms of paralysis due to lesions of the cord, namely, acute anterior polio-myelitis, tabes dorsalis, and diffuse myelitis.

From polio-myelitis anterior it may be differentiated by the onset being more gradual, accompanied by pain and numbness, tenderness in the muscles, and the persistency of the sensory symptoms. Should the symptoms not be clearly defined and the paralysis situated in muscles supplied by a single nerve, the case is evidently one of multiple neuritis. The paralysis in multiple neuritis gradually advances, while in polio-myelitis it, often after the onset, subsides in the muscles first affected.

Ataxia, loss of knee-jerk, pain and sensory disturbances (including loss of muscle sense), Romberg's symptom and optic neuritis are common to tabes dorsalis and multiple neuritis. In the latter the relatively rapid onset of the ataxia, the prominence of numbness and anæsthesia, instead of lightning pains, the extreme degree of anæsthesia, tenderness of the muscles and nerves, the occurrence of paresis with atrophy, the R. D., and the absence of bladder and sexual symptoms, will indicate the nature of the case. Ataxia occurs in neuritis only in cases due to poisoning by alcohol or arsenic, or after an attack of diphtheria. Return of the knee-jerk and the course of the case to recovery favor neuritis.

Diffuse myelitis is an extremely rare disease, and Leyden has affirmed that

such cases are neuritis. In multiple neuritis the functions of micturition and defecation are never affected. Girdle sensations are rare, and bed sores with cystitis have never been observed. It is rare for the paralysis in neuritis to advance from the legs to the thighs and trunk, and then to the arms, as it does in myelitis.

The prognosis is dependent upon the amount of nerve tissue involved, as indicated by the distribution of the paralysis and is, in most cases, favorable. There are three indications to be met by treatment, namely:

1. The removal of all agencies which have been influential in precipitating the attack, or of those which, if not removed, are likely to intensify it.

2. The relief of the sensory trouble, more especially the pain.

3. To improve the tone of the nervous system in order to secure a return of its functional integrity.

(1) Alcohol in its various forms should not only be prohibited, but a strict surveillance should be exercised over the patient to prevent his obtaining it. This is important and is specially emphasized because we cannot, in this disease, trust to the honesty of patients or their servants. As I have endeavored to show when speaking of the symptomatology of alcoholic neuritis, those affected are unreliable, resorting to every expedient—even lying—to deceive the attendant. But while the patient may not be able in person to obtain alcohol, by promises or threats, he can frequently induce servants to violate the expressed orders of the attendant. Therefore, every safeguard should be thrown around the patient, because, upon the total abolition of his bibulous habits depends, to a great extent, his recovery. This should, consequently, be impressed in no uncertain manner upon the minds of relatives and friends. Cases due to other causes should be placed in the most favorable surroundings to secure an absence of everything calculated to produce or aggravate the disease.

(2) For the relief of pain I can speak with confidence of the salicylates and bromides. These are to be given in large doses. The salicylate of sodium in fifteen grain doses, repeated every two or three hours, will be required to allay the pain, while the bromides appear to subdue the nerve perturbation so frequently seen in these cases. Opium is seldom required, but occasionally the pain is so severe as to require morphia hypodermatically, and it would be the refinement of cruelty, amid so much agony, to refuse the relief which this drug furnishes. In cases where malaria is a causative factor, quinia in full doses is indicated.

(3) To bring about a restoration of nerve function and to repair the damage to the nervous system, perfect, absolute rest is necessary. The surroundings of the patient should be made cheerful and pleasant in order to encourage that condition of mental equipoise and comfort so essential for nerve nutrition. Tonics, as strychnia, arsenic, iron and coca are indicated. The administration of arsenic has in the hands of most observers yielded excellent results, and should be used continuously for a long time. Strychnia, being a pure nerve tonic, may also be given with benefit. Among those who have had the largest experience in the treatment of this disease, iodide of potassium and the preparations of mercury have seemed to be without curative effect, in some cases even exercising a pernicious influence.

In order to restore the nervous system to its originally healthy condition there are two agents, which, if judiciously used, promise much. I refer to massage and electricity. The extremely tender condition of the muscles and the hyperæsthesia of the skin may, for a time, make the use of massage an impossibility, but as this undergoes amelioration gentle friction should be begun and continuously used, and as the normal condition of sensation is secured kneading should be persistently employed. Where the hyperæsthesia and tenderness are severe the use of cooling lotions, or hot water applied on cloths sometimes affords relief.

Electricity, so valuable in many morbid conditions, marked by paralysis, should be used with judgment, since it is a two-edged remedy, either proving of great benefit or lasting injury. In multiple neuritis it subserves two purposes, namely, to aid in nerve regeneration, and to re-establish the normal conductivity of the nerve. The first object is best attained by the use of the galvanic current, which should be mild, ten minutes being sufficient for each application. This should be used daily, its maximum intensity being attained slowly, without interrup-

tion. To accomplish the second object the faradic current of moderate intensity will give the best results. To exercise the muscles and to prevent the atrophy consequent upon non-use, most writers recommend the interrupted galvanic current.

With the methods of treatment detailed the management of multiple neuritis promises to be eminently successful, and day after day the benefit derived will be more and more perceptible, until at last nerve regeneration is secured, muscle tone improved, and the health of the patient perfectly restored.

COMMUNICATIONS.

CRIMINAL ABORTION.*

WM. H. PARISH, M. D.

In submitting a paper this evening upon the subject of criminal abortion, I must refer to some extent to the law relating to it, and I shall do so with no little hesitation in the presence of the learned legal gentlemen with us.

I am very forcibly reminded of something I read during my college days, in one of those dead languages which we learn so slowly and forget so quickly—namely, that he who is ignorant of the science of warfare should not discuss military matters in the presence of Hannibal—so I, ignorant of law, might well be silent in reference to matters of law in the presence of that legal Hannibal, our very able District Attorney. But I hope he will correct me when in error, and I am sure that he and the other legal gentlemen present, and our Coroner, Mr. Ashbridge, will present in a most interesting and instructive manner, the correct relations, under the law, of the physician to cases of criminal abortion, when the after-treatment comes under his charge.

The practice of destroying the fœtus *in utero* is not of modern introduction, but is recorded in history from the earlier nations, with the sole exception of the Jews. Aristotle and Plato defend it (*Travels of Anacharsis* v. p. 270; *Ibid.*, iv., p. 342). It is mentioned by Juvenal, Ovid, Seneca, and Cicero, and denounced by the earlier Christians. It was common in Europe through the Middle Ages and still prevails among the Mohammedans, Chinese, Japanese, Hindoos; and it has been so extensively resorted to in most of the nations of Africa and Polynesia that it is doubtful if more have died in these countries by plague, famine, and the sword.

In approaching the consideration of criminal abortion the first query which very naturally presents itself is, "What constitutes criminal abortion?" In attempting to reply to this question we must not confound the different interpretations given to the term abortion. In medical language the word indicates delivery prior to the viability of the child, or it is restricted by some to delivery prior to the formation of the placenta; in other words, it is limited to delivery during the first six months or the first three months of pregnancy. In law this term is not thus limited, but is applied to delivery at any time prior to intrantion maturity.

The expulsion of the ovum, fœtus, or child by criminal violence, at any period of utero-gestation, is regarded as a miscarriage or abortion in law. Criminal abortion, then, is criminal delivery prior to maturity. What constitutes criminal abortion as distinguished from non-criminal abortion? Wherein rests its criminality under human or Divine law?

"Abortion" has been legally defined thus: "Any person who does any act calculated to prevent a child from being born alive is guilty of abortion. The intention constitutes the crime, not the means employed. The drugs may even be harmless." He, then, who resorts to any procedure, however harmless in itself, with the intention of producing an abortion, is guilty.

If the pregnant woman, with or without the advice of another, administers to

* Read before the Philadelphia County Medical Society, March 22, 1893.

herself a drug or resorts to some mechanical procedure with the intention of producing an abortion, she is herself guilty and liable to punishment under the law, even though the drug or the procedure be itself harmless.

If she voluntarily submits to the use by another or mechanical means which she knows are intended to produce on her an abortion, she is guilty along with him who uses the instrument or other means.

In order that an attempt to produce an abortion may constitute a felony, it is not necessary that the woman be pregnant—even though she be not pregnant, the intention constitutes the crime.

I will not argue before this society the great moral criminality of what is known under the law as criminal abortion. The medical profession looks upon this crime as one of the most heinous, and as closely allied to infanticide. He who is believed guilty of such a crime could never be received into membership in this or any other medical society; or if a member should so far forget his high calling as to be guilty of this crime, his expulsion would quickly follow upon the presentation of adequate evidence of his guilt.

The physician who resorts to criminal abortion does so in the most secret manner, for he knows not only that he is punishable under the law, but he also knows that professional ostracism will make him forever an outcast from the medical profession.

Undoubtedly many criminal abortions are produced by legalized practitioners of medicine, but in this State the law legalizing the practice of medicine is a very lax one, and in some States there is no law determining who shall practice medicine. I do not believe that criminal abortion is frequently performed, even ever so secretly, by men or women of recognized professional standing; but that it is at times produced by some such members is certainly the case, as the records of the criminal docket show. The habitual abortionist, if a legalized practitioner, is nearly always one around whom suspicion, at least, has rested, and this suspicion has been sufficient to debar him from that affiliation with the worthy members of the medical profession which constitutes to a large degree the stamp of professional respectability. The medical profession draws a wide distinction between a legalized practitioner of medicine and a worthy, reputable physician. Unfortunately, this distinction is not sharply drawn by some lay minds.

Graduates of the best medical schools have proved false to their noble avocation, and have brought dishonor upon themselves and, to a certain degree, discredit upon the profession of medicine. But this experience is not limited to our profession—a like experience occurs in the sister professions of theology and of law, and, in fact, we may say in all avocations of life.

There are those, however, who produce, or attempt to produce, criminal abortion who are not legalized practitioners of medicine—are not practitioners of medicine at all. Often such persons are exceedingly ignorant; they know nothing of the anatomy concerned; they possess no manual skill in the manœuvres undertaken; they have only the most vague knowledge of the injuries which may be inflicted; they know nothing, or almost nothing, of the effects of the drugs administered; they only believe that certain procedures and certain drugs have the reputation of producing abortion; yet he who attempts to produce an abortion always knows that what he is doing is criminal.

Criminal abortion, however, is not infrequently produced or attempted by the pregnant woman herself. I think that such women are not always cognizant of the fact that they are liable to the law for such an act. Each one knows that if she commits the crime on another she is amenable to punishment; but for a self-produced abortion she seems not to know that she is punishable.

A few words in reference to the justifiable production of abortion or of premature labor by members of the medical profession. That the production of delivery before the viability of the child, *i. e.*, before the end of the sixth month, is at times justifiable, is recognized in the courts and by the medical profession. But the conditions which justify such a radical procedure are not numerous.

Whenever it is necessary to terminate pregnancy in order to save the life of the mother, such a procedure is justifiable; if not thus necessary, the procedure is criminal. I grant that there is room for difference of opinion in the medical pro-

fession as to what conditions justify the production of abortion. The resort to an abortion may be reprehensible though not criminal; for instance, when it is performed by a practitioner of medicine under the mistaken, though honest, opinion that an abortion is necessary to save the life of the mother. It is quite generally accepted that there are cases of disorders of the kidneys, or of the heart, of degenerations of the ovum—as myxoma of the chorion and polyhydramnios—and very rarely instances of uncontrollable vomiting, in which the production of early or late abortion is demanded and justifiable, because it is necessary to save the life of the mother, and also because the death of the mother always involves the death of the embryo and usually that of the child approaching maturity. The authoritative works on "Medical Jurisprudence" class among the conditions justifying abortion, extreme pelvic deformity. Although this statement was a proper one at one time, it is not so at present, in my opinion.

The very favorable results of the Cæsarean section, and of its modification, the Porro operation, and of symphysiotomy so recently introduced into this country—the results, I say, of these operations are now so very favorable, both to the mother and to the child, that it is time to eliminate even extreme pelvic deformity from the list of conditions justifying early abortion. The law leaves it quite entirely to the medical profession to determine what constitutes justifiable abortion, either early or late. The responsibility in this direction thus placed upon us is a very weighty one, and the privilege conferred with it should be exercised with the utmost discretion. I have, in a very few instances, felt that the physician was getting very close to criminal ground when he produced an abortion under the plea of justifiability. For instance, a lady pregnant three months wanted an abortion produced, and so did her husband, because she, having had one very painful labor, had great dread of another labor in advanced pregnancy. They both expressed great fear that insanity would develop if her pregnancy was not terminated. Her physician asked me in consultation. We decided that an abortion, was unjustifiable. She returned to her former home in a distant city and there the abortion was produced by a regular practitioner. I saw a letter from this physician in which he attempted to justify on medical grounds, not only this abortion, but also two previous ones on the same lady. His plea was that of justifiability because of apprehended insanity. Such and similar cases seem to me to quite merge into criminality. Professional opinion in reference to what constitutes justifiable abortion should be so firmly crystallized that criminal abortion could not be performed under a false plea of justifiability.

As to the frequency of the occurrence of criminal abortion, it is impossible to give any statement of even approximate accuracy. Secrecy is so closely associated with its performance, that it is impossible to arrive at more than the crudest opinion as to the frequency of its occurrence.

I suppose every physician of some reputation as an obstetrician or gynecologist has applications from those desiring that an abortion should be produced. Probably a half-dozen such applicants call upon me during each year. Doubtless the same women visit other physicians on like errands. Also, nearly every physician is called in to take charge of the after-treatment of cases of criminal abortion. He will suspect some of them to be criminal, but in most instances he is unable to assert that the abortion is or is not a criminal one. Many cases of early criminal abortion do not come under reputable professional care at any period of their course. Even all the fatal cases are not recognized as criminal. For these reasons it is impossible to do more than to form an opinion that criminal abortion is performed with considerable frequency. All statistical statements as to the frequency of criminal abortion are, however, valueless, and are merely expressions of opinion.

It is well recognized that criminal abortion brings to the patient enhanced dangers—dangers greater than those pertaining to accidental or justifiably produced abortion. The increased dangers are due to the character of the manœuvres and to the drugs resorted to. The mechanical measures are often carried out in a bungling, unskilled manner, and without regard to the liability of conveying a septic poison. Often drugs are used, which, when given in too large quantities, endanger the life of the patient whether or not an abortion is pro-

duced. The woman, desirous of securing secrecy, often does not call in a physician sufficiently early to enable him to prevent a fatal result.

The methods of producing, or of attempting to produce, criminal abortion are numerous and widely diverse in character. Of the drugs resorted to in this country, probably the ones most frequently used, and also the ones most likely to effect the result aimed at, are the preparations of ergot and of cotton-root. These drugs act by stimulating directly the contraction of the uterus. I have known a patient to treasure up a bottle of ergot left over from her labor, and to successfully partake of its contents at the incipiency of her next pregnancy. But even these drugs usually fail to effect an abortion at any period of pregnancy. Among other drugs frequently administered are aloes and savine. The entire list of medicines occasionally resorted to would be a long one—among them may be mentioned elaterium, croton oil, colocynth, gamboge, cantharides, arsenic, strychnine, corrosive sublimate, and other forms of mercury; pennyroyal, tansy, black hellebore, and not a few others, some of which are active poisons, others are dangerous in large quantities, and some are harmless. None of them produce abortion except occasionally, and then only through their injurious effects upon other organs or upon the general system. Some of them will produce the death of the patient without producing an abortion.

Tardieu, in his classical treatise, gives numerous cases of abortion produced, or attempted, by mechanical means. The professional abortionist usually dilates the cervix with a metallic dilator, and introduces a slender instrument into the uterus and punctures the membrane—or he may use the latter instrument without previous dilation of the cervix. Very usually, after the membranes have been punctured, he dismisses the patient and an abortion comes on in generally from three to ten days.

The more modern method of the criminal abortionist of advanced ideas is to dilate the uterus with graduated dilators, under ether, and at once to empty the uterus with all antiseptic precaution, usually receiving the woman into his private hospital for this operation. A lady applied to one of the medical men who advertised in the New York papers. He admitted her into his hospital in New York City, and practiced the immediate removal of the ovum. She returned to Philadelphia at the expiration of a week's absence.

But sometimes the operator is ignorant and unskilled, and a great variety of instruments have been carried into the uterus: wooden skewer, crochet-needle, hair-pin, knitting-needle, a weaver's spindle, whalebone, wire, umbrella-ribs, penholders, catheters, bougie sounds, tents, and dilators. Tardieu speaks of the frequent use in France, of what is termed a hedgehog, which I believe is a slender instrument having near the end a number of bristles, which lie close to the handle when introduced into the uterus, but expand after introduction, and which, when rotated very effectually, break up the ovum, but which has proved disastrous also to the mother. Electricity is also effectually resorted to, one pole being usually introduced into the uterus.

Injections of corrosive or other irritant substances into the vagina are occasionally resorted to by the patient or by an ignorant abortionist. I have known a patient to produce an exfoliation of almost all of the epithelial lining of the vagina, by means of a strong solution of alum, without producing an abortion. Injections of different fluids, even water, into the uterus are resorted to, and if the membranes are largely detatched or ruptured, abortion inevitably follows. In a few instances the most violent measures, such as the introduction of the hand into the uterus and attempts to drag out the entire uterus, have produced most disastrous effects.

What lesions do we find following attempts at criminal abortion? Naturally, from the variety of the means resorted to, these are various, and may be numerous in an individual case. In one authentic case the patient herself carried an umbrella-rib into the uterus, perforated its wall, entered and passed upward and through the abdomen, through the diaphragm and into the lungs. She did not desist in her efforts until coughing of blood and troubled breathing alarmed her. She concealed her manœuvres, and the umbrella-rib was found *in situ* in a post-mortem examination. During pregnancy the physiological softening of the uterine

tissue permits the easy passage of a somewhat sharp instrument through it into the peritoneal cavity, and generally with resultant fatal peritonitis. When mechanical means are resorted to, if perforation of the uterus does not occur there is usually, though not invariably, laceration —it may be a slight one—of the neck of the uterus or of the vagina. Rupture of the vagina or of the uterus has occurred from the introduction of the hand. Abscesses at various points in the uterus or in close proximity to it may follow. Blood-poisoning with local inflammations constitute the pathological conditions following many cases of criminal abortion. When drugs have been administered, gastric and intestinal inflammation may result, and evidences of such be seen after death.

It is not usually difficult to determine that an abortion is in progress; but it is by no means an easy matter to determine with certainty, from the examination of the patient during life, whether or not the abortion is criminal in character. Even fatal perforations of the uterus are not usually recognizable during life. The statements of the patient may give this information, but she may, and usually does, deny that any attempt has been made to produce an abortion. Her statements, if accepted, would usually be misleading. Hence cases which recover, and the very great majority do recover, can usually be only diagnosticated as probably criminal abortions.

In the lesions found post-mortem, there is no characteristic evidence that the abortion has been a criminal one, excepting the wounds, which are usually, though not always, present in such cases as have resulted from the use of mechanical means. Even then the history of the case must be looked into, for the abortion may have been innocently produced by a reputable physician, who had failed to recognize the existence of pregnancy. Lacerations of the vulva, perineum, or vagina, may result from violent sexual intercourse, and excessive or violent intercourse is not an infrequent cause of abortion in the young.

The after-treatment of criminal abortion must be according to the peculiarities of the case. If the abortion is incomplete, the indications are absolute to immediately empty the uterus and to render it aseptic. Here the expectant treatment is fraught with great danger. Such cases usually call for the utmost skill of the expert to effect the recovery of the woman.

Most frequently the underlying cause of a fatal result is septic infection or blood-poisoning. The traumatism produced is in itself usually slight and insignificant, but septic poison develops in the retained fragments of the products of conception, or is carried into the genitals by the abortionist. Blood-poisoning and the associated inflammatory lesions result.

Abdominal section with ablation of the uterus and its appendages, or of the appendages alone, may be necessitated.

When a patient suffering from a criminal abortion is sent to a hospital, it should be to one having a maternity or a gynecological ward; otherwise, the best treatment may not be secured.

In the management of cases of criminal abortion, the physician is often placed in a most trying position. If, perchance, he has been informed by the patient, or, if in his examinations he has discovered that measures or drugs have been resorted to with the view of producing an abortion, what becomes his duty under the law? Here we would like to have an expression of the views of the Coroner, the District-Attorney, and the other lawyers present.

Is it incumbent upon the physician to notify the officers of the law, that an abortion has been produced, or attempted, illegally? If he does not thus furnish this information, to what extent, if any, does he render himself a *particeps criminis* under the law? Should the information thus gained in the practice of his profession be held sacred in deference to the good name of his patient, who is usually, though not always, more sinned against than sinning, or in deference often to the fair fame and happiness of the other members of the family?

I believe that very often the physician does all that is in his power to conceal both the fact that an illegitimate pregnancy has occurred, and also that an abortion, even though criminal, has resulted. Is the physician then acting with justice to himself, and with a proper appreciation of his duties under the circumstances? Is it incumbent upon him to become an informer?

I know that in this State the information gained in the practice of his profession, and necessary to the proper treat-

ment of his patient—I know that such information is not privileged, but may be extorted from him in our courts. Yet must he voluntarily convey this information to the officers of the law? Or shall he draw a distinction between the fatal and the non-fatal cases? Shall he report only the fatal cases to an officer of the law, withholding his certificate of death in such instances and letting the Coroner investigate the circumstances? Certainly, if the case is about to terminate fatally the proper information should be given in order that an ante-mortem statment may be secured, and undoubtedly also no physician should give a death certificate in any case in which the death has resulted from what he strongly suspects or believes or knows to have been a criminal abortion.

These rules are in accord with justice to the physician whose reputation is at stake, and are also in accord with law and the welfare of the community. But if the patient is recovering, is it required by law, or is it in accord with the general welfare of the community, that information bearing upon the character of the abortion should be formally brought by the physician before the officers of the law? I will answer the question in the negative, and will ask the gentlemen present to tell us in the discussion whether or not I am correct. In my opinion the physician should not become an informer.

I will further say, that he should not elicit or extort from the patient any information bearing upon her criminality, other than that which is necessary for his guidance in the performance of his professional duties. He must not perform the functions of a detective.

In all serious cases of abortion, especially if criminal, the physician should secure another physician in consultation for the protection of his own reputation, as well as for the welfare of the patient. Let the physician remember, also, that he can examine the patient's genitals only with her consent. If he, by an exercise of force, secures such examination, he renders himself liable to punishment by legal process.

The consideration of the measures which may tend to diminish the number of criminal abortions becomes very important in every large city, for it is believed that where the population has become concentrated, there this crime occurs with greatest frequency. These conditions or habits of life, which diminish the number of marriages, increase the number of illegitimate pregnancies and the number of criminal abortions. But many such abortions occur in the married, and largely in proportion to the tendencies on the part of the married to indulge in expensive habits of life beyond their financial abilities.

The disgrace and shame attendant upon illegitimate pregnancy or maternity is the impelling motive on the part of the great majority of the unmarried. A recognition of the difficulties and of the disgrace attendant upon the care of an illegitimate child, on the part of its unmarried mother, impels some to secure criminal abortion.

With all, however, there is an underlying immorality, usually on the part of both sexes, which leads up to the commission of an act as unnatural as it is criminal. The preservation of the purity of morals, then, of the youth of both sexes constitutes the only efficient safeguard against the occurrence, in any community of criminal abortion—other measures are adjuncts only.

Suturing of Divided Tendons.

Dr. A. H. Meisenbach, Professor of Surgery, Marion-Sims College of Medicine, St. Louis, Mo., says:

In the suturing of divided tendons in order to obtain good results the following indications must be met, viz.:

1. The utmost care in carrying out complete aseptic and antiseptic measures.
2. Enlarging the wound to such an extent that a free field for operation is obtained; extensive opening of a sheath, if necessary, to easily catch up retracted tendons.
3. Care in suturing the corresponding cut ends with silk or catgut, preferably catgut.
4. The ends of tendons, if ragged, may be resected, so as to get smooth edges. If not enabled on this account to approximate the ends, with a suture intervening, good results may still be expected.
5. Careful suturing of the sheath with continuous catgut suture, leaving an opening for drainage at the site where tendons are sutured.
6. Appropriate position on a splint, the parts being so placed as to relax the sutured tendons.—*North Carolina Med. Jr.*

THE LAW OF CRIMINAL ABORTION IN PENNSYLVANIA.*

LORENZO D. BULETTE, OF THE PHILADELPHIA BAR.

The differences of opinion among the courts of England and the various States, as to the stage of gestation at which the common law crime of abortion may be perpetrated, causes any extended examination of their decisions to partake of a speculative rather than practical character; especially so, in view of the fact that the question is now very generally settled by statute, and nearly all indictments are founded on these statutes, the provision of which and the judicial interpretation thereof, even on similar provisions, vary in the courts of the different States.

And when, in addition to this, it is recalled that the law of this State, in the severer view it has always taken of the crime and the milder view it has always taken of the consequences thereof where they result in the death of the woman, presents peculiarities which sharply differentiate it from the law of other States, thus causing it to stand practically alone, it will be apparent that the course most fruitful of results, for the purposes of the present occasion, is to confine our inquiry to the law of criminal abortion as it stands to-day under the Criminal Code of Pennsylvania and the decisions of her courts interpreting that code.

The first and only legislative enactment aimed at this crime appears as the 87th and 88th sections of the Penal Code, which is known as the Act of March 31, 1860.

Section 87 is in the following language:

"If any person shall unlawfully administer to any woman, pregnant or quick with child, or supposed and believed to be pregnant or quick with child, any drug, poison, or other substance whatsoever, or shall unlawfully use any instrument or other means whatsoever, with the intent to procure the miscarriage of such woman, and such woman, or any child with which she may be quick, shall die in consequence of either of said unlawful acts, the person so offending shall be guilty of felony, and shall be sentenced to pay a fine not exceeding five hundred dollars, and to undergo an imprisonment by separate or solitary confinement at labor not exceeding seven years."[1]

Section 88 is in language as follows:

"If any person, with intent to procure the miscarriage of any woman, shall unlawfully administer to her any poison, drug, or substance whatsoever, or shall unlawfully use any instrument, or other means whatsoever with the like intent, such person shall be guilty of felony, and being thereof convicted, shall be sentenced to pay a fine not exceeding five hundred dollars and undergo an imprisonment by separate or solitary confinement at labor, not exceeding three years."[2]

Both these sections are new in the criminal statutes of Pennsylvania, and contrasting them broadly it is clear that § 87 is intended to meet the case of the death of a pregnant woman following any criminal intent to procure her miscarriage, or the death of the child with which she may be pregnant. It also meets the case of the death of a woman from drugs administered, or instruments applied, with the intent to produce abortion, where such woman is not actually pregnant.

Section 88 punishes the administration of drugs or the use of instruments with intent to procure abortion, although no abortion is actually produced, and although the female survives the operation. This section, it was hoped by the commissioners who drafted the Penal Code, might tend to put a stop to crime of too frequent occurrence.[3]

With this much for the language and purpose of the statute, we next proceed to the decisions of the courts explaining and interpreting it; and these may be arranged for convenience and clearness under the following heads:

1. Definition and Degree of the Crime;
2. Interpretation of the Statute;
3. Means Employed and the Intention;
4. Legal Responsibility of the Obstetrician in his Relations with Abortion.

Of Definition and Degree of the Crime.—Miscarriage, both in law and philology, means the bringing forth the fœtus before it is perfectly formed and capable of living.

Abortion is synonymous and equivalent to miscarriage in its primary meaning; and when it is brought about with a malicious design, or for an unlawful purpose, it is a crime in law.

*Read before the Philadelphia County Medical Society, March 22, 1893.

1 Act, March 31, 1860, § 87; Purdon's Digest, § 156, p. 431.

2 Act, March 31, 1860, § 88; Purdon's Digest, § 157, p. 431.

3 Report of the Commissioners on the Penal Code, p. 25.

Any person, therefore, who does any unlawful act calculated to prevent a child from being born alive is guilty of criminal abortion. This is justly regarded as an offence of great enormity; because, to procure the miscarriage of the woman interferes with and violates the mysteries of nature in that process by which the human race is propagated and continued. The attempt, by wicked means, to interfere with that process and destroy the fruit of the womb thus becomes a crime against nature, closely allied to murder, and, therefore, deserving of severe and ignominious punishment.[4]

"It is not," says Mr. Justice Coulter, "necessary that the mother have quickened to constitute the crime of committing abortion. But, although it has been so held in Massachusetts and some other States, it is not, I apprehend, the law in Pennsylvania, and never ought to have been the law anywhere. It is not the murder of the living child which constitutes the offence, but the destruction of gestation by wicked means and against nature. The moment the womb is instinct with embryo life, and gestation has begun, the crime may be perpetrated."[5]

In this connection it must be borne in mind that, at common law it was never a punishable offence to perform an operation on a pregnant woman with her consent, before the child quickened; nor was it murder, at common law, to take the life of a child at any period of gestation, even in the very act of delivery, or while any portion of the child, except the umbilical cord, remained within the vulva.[6]

Preliminary to a discussion of § 87, which applies to the crime of committing an abortion resulting in the death of either or both mother and child, it may be profitable to contrast the degree of criminality of the offence, resulting in the death of the mother, as viewed by the common law, with the degree of criminality of the same offence as viewed by the law of Pennsylvania as it existed previously to March 31, 1860.

Of the degree of turpitude of this offence, one of the most learned and humane sages of the common law, Sir Matthew Hale, gives the following as the doctrine ruled by him at Bury Assizes in the year 1672:

"If a woman be with child, and any gives her a potion to destroy the child within her, and she takes it and it works so strongly that it kills her, this is murder: for it was not to cure her of a disease, but unlawfully to destroy her child within her; and, therefore, he that gives a potion to this end, must take the hazard, and if it kills the mother, it is murder."[7] And the same doctrine has been held in more recent times.[8]

In Pennsylvania, however, it was decided in a more lenient spirit that although death was not intended, yet, the acts are of a nature deliberate and malicious, and necessarily attended with great danger to the persons on whom they are practiced; and, consequently, those who perpetrate them are answerable for their results. And although by the common law such a crime would, therefore, have been murder, yet in Pennsylvania it can hardly be regarded as exceeding that crime in the second degree, unless there existed in the perpetrator of the mischief an intent as well to take away the life of the mother as to destroy her offspring. It is the nature of the intention with which the criminal act is committed that constitutes the great distinguishing feature between murder as it stands at the common law and murder as it is understood in the criminal code of this Commonwealth. Where the illegal act, which produces death, is malicious and perpetrated with an intent to take life, the offence becomes murder in the first degree, and punishable with death; where no such attempt is apparent, the crime is reduced to murder of the second degree, and punished by penal imprisonment.

At common law the death of the mother following criminal abortion is murder, not because the agent accomplishing the act intended to kill the female, but because the act being unlawful in itself he is held responsible for all its results. In Pennsylvania, however, that murder only is felony of death, where the act producing the homicide is not only unlawful but perpetrated with an intent to kill the victim of the crime. The common law murder fol-

4 Mills *vs* Commonwealth, 13 Pa. St. 633 (1850).

5 Commonwealth *vs.* W.——, 3 Pittsburg, 462 (1871).

6 Mitchell *vs.* Commonwealth, 78 Ky., 210 (1879).

7 1 Hale's Pleas of the Crown, pp. 429-430.

8 Tinkler's Case, 1 East P. C., ch. 5, sec. 16.

lowing criminal abortion is the exact kind of crime which the legislature intended by the act of 1794 to reduce to the grade of murder in the second degree; being a homicide arising from an unlawful act, unaccompanied with an attempt to take away life.[9]

Thus stood the law relating to this offence prior to the Abortion Act of March 31, 1860. But since that time the Supreme Court has decided[10] that the effect of § 87 of that Act was to take the crime therein specified out of the class designated as murder in the second degree, and make it a felony of lesser grade and prescribe the punishment therefor. As a consequence of this decision, if a person cause the death of a woman in attempting to produce a miscarriage, he cannot be indicted for murder; and this is the law in Pennsylvania at this time.

Of the Interpretation of the Statute.—As compared with the offence specified in § 87, that described in § 88 is complete without the death of either the woman or the child. "In both cases," says Mr. Justice Green, "the grade of the offence is the same, viz., felony. In both cases the acts done are the same. In the first, if those acts are followed by the death of the mother or child as a consequence, that is, in the relation of effect to a cause, a difference results in one of the penalties imposed. The possible fine is the same, but the possible imprisonment is longer—seven years instead of three. The facts which constitute the crime are precisely the same in both cases, to wit, the administering the drug or using the instrument with intent to produce a miscarriage. It follows that the death is no part of the facts which go to make up or constitute the crime. It is complete with the death or without it. The death, therefore, considered in and of itself, is not a constituent element of the offence. It may happen or it may not. If it does not happen, a certain possibility of penalty follows. If it does happen the same character of penalty follows, but with a larger possibility, not a certainty, in one of its items. This seems to be a precise expression of the difference between the cases provided for in the two sections.

"In case the woman does die in consequence of the unlawful acts, the crime charged and tried is not homicide in any of its forms, but the felony of administering a drug or using an instrument with intent to procure a miscarriage. In its facts and its essence it is the same crime that is charged and tried if no death results. The death, when it occurs, is an incident the sole purpose of which is to determine whether the imprisonment of the defendant may be longer than when death does not occur. The crime is as fully completed without the death as with it. The death, therefore, is not an essential ingredient of it. Its function under the statute, when it occurs as a consequence, is not to determine the *factum*, or the character, or the grade of the crime, but the character of the penalty to be endured by the criminal."[11]

Of the Means Employed and the Intention.—The terms of the statute specifying the means employed are so sweeping and comprehensive that one could scarcely suppose a doubt in this respect possible: "any drug, poison, or other substance whatsoever, or shall unlawfully use any instrument or other means whatsoever," is the language of the statute. But the question did arise during the trial of an indictment charging the accused with prescribing and advising the use of immoderate and excessive exercise with intent to induce abortion. And the court, in answer to the objection of defendant's counsel that such means do not constitute any offence under § 88, contending that the words defining the crime, "or shall use any instrument or other means whatsoever," imply some act to be done by the defendant and not by the woman herself at his instigation, or under his advice, persuasion, or influence, said: "We are not prepared to adopt the view of the law presented by the defendant's counsel, for the reason that such an interpretation would greatly abridge what we conceive to be the remedial design of the statute, and, to a great extent, frustrate the expressed intention of its framers. If a person intent on inducing abortion must not only prescribe the drug, but with his own hand put it to his victim's lips, or, after contriving the mechanical means, must to

9 King, P. J., in Commonwealth *vs.* Keeper of Prison, 2 Ashm. 235 (1839).

10 Commonwealth *vs.* Railing, 113 Pa. St. 37 (1886)

11 Railing *vs.* Commonwealth, 110 Pa. St. 104 (1885).

moral constraint superadd physical force, we can readily perceive how the abortionist may practice his nefarious schemes with impunity in the very face of the statute. The defendant, according to the evidence, contrived these means and used the prosecutrix as a blind instrument in rendering them efficacious; what she did was as much his act as if she had been moved to it by outward constraint." And, as the evidence produced by the prosecution tended to prove the charge of advising the use of immoderate and excessive exercise to induce the abortion, the court instructed the jury that such means were within the intent and meaning of § 88 and that they were used by the defendant just as much so as if he had been present and employed physical instead of moral force.[12]

And in another case it was said that if any person administers any matter or thing to a woman who is pregnant or quick with child, with intent to produce an abortion, and the woman or child shall die, notwithstanding the matter or thing administered is but a crumb of bread, such person is within the statute and may, upon proper evidence, be convicted.[13]

The question, therefore, is one of intention and not of the means employed; it is whether the drug was used or the means were employed with the intent to induce abortion.

It is not necessary that the substance administered have some inherent tendency to accomplish the imputed design. If a person administers any harmful substance to a pregnant woman, or to one supposed at the time to be pregnant, with the intent to procure her miscarriage, although the substance administered may fail of the effect designed, and although it may have no tendency to produce such effect, he will be guilty of the offence of criminal abortion within the contemplation of the statute.

And it is not necessary for the Commonwealth to establish beyond doubt what was the direct and immediate cause of the miscarriage; the question is whether the means employed were calculated to produce it, and with intent to do so.[14]

12 Acheson, P. J., in Commonwealth *vs.* W—, 3, Pittsburg, 462 (1871).

13 Commonwealth *vs.* Gumpert, 1 Luz. Leg. Reg., 187 (1877).

14 Acheson, P. J., in Commonwealth *vs.* W.—3, Pittsburg, 462 (1871).

Summarizing briefly we conclude: *a.* That in respect to the crime of abortion the law of Pennsylvania has always taken an advanced and enlightened view as compared with the history of the law relating to this crime in other States—its policy and first care throughout being the preservation of fœtal life and the punishment of the unlawful destruction thereof severely as compared with the punishment inflicted upon the same offence where it results fatally.

b. That the intention, not the means employed constitutes the crime, which is complete although the means employed have no inherent tendency to produce the designed effect, and although the woman be not pregnant.

c. That the crime under our statute is not homicide in any of its forms, but simply the statutory crime of committing or attempting to commit abortion; and that in its essence the degree of criminality is the same whether the results are fatal or otherwise, the only difference being a slightly increased punishment in the former case.

Of the Legal Responsibility of the Obstetrician in His Relations with Abortion.—It seems a proper addition to this statement of the law to offer also the precautions thereby suggested for the guidance of the professional conduct of the obstetrician in order to shield him from reproach, suspicion, or, perhaps, prosecution in those relations with abortion in which he is likely to be placed.

That abortion may in some cases be lawful is undoubted. This fact, while not expressed in the terms, is true as a necessary inference from the language of the statute: it is the unlawful administration of drugs and the unlawful use of instruments that is denounced by its sanctions. Any question, therefore, respecting the illegality of inducing premature labor in certain cases where the life of the woman is seriously endangered, as in deformity of the pelvis or in excessive vomiting from pregnancy, cannot now be entertained; for the means are administered or applied with the *bona fide* intention of benefiting the female, and not with any criminal design.

Says an authority:[15] "The necessity for the practice ought to be apparent; thus,

15 Taylor's Medical Jurisprudence, p. 529.

for instance, it should be shown that delivery was not likely to take place naturally without seriously endangering the life of the woman. It is questionable whether, under any circumstances, it would be justifiable to bring on premature expulsion merely for the purpose of attempting to save the life of the child, since the operation, even when performed with care, is accompanied with risk to the life of the mother. Hence, a cautious selection of cases should be made as the operation is necessarily attended with some risk to both.

"All that we can say is that, according to the general professional experience, it should place the woman in a better position than she would be if the case were left to itself. But before a practitioner resolves upon performing an operation of this kind he should consult with his colleagues, and before it is performed he should feel assured that natural delivery cannot take place without greater risk to the life of the woman than the operation would itself create.

"The non-observance of these rules is necessarily attended with some responsibility to the general practitioner. In the event of the death of a woman or child he exposes himself to a prosecution for a criminal offence, from the imputation of which even an acquittal will not always clear him in the eyes of the public."

The physician is also liable to be brought into another and different relation with abortion, that is, when he is called to attend a patient suffering from the effects of a criminal operation and the question arises as to his legal duty in order to shield himself from the consequences attending his after-acquired knowledge of the crime.

The only safe course for such physician, after being satisfied with the correctness of his diagnosis—confirmed by one, or, better still, two of his colleagues—is to lay the foundation so acquired of the crime before the prosecuting attorney of the county. But it may, perhaps, be more satisfactory to the medical profession to have the reasons for this advice set forth somewhat in detail.

In its interpretation of the two sections of the Abortion Act, the Supreme Court, as mentioned above, has decided, and expressed its opinion with some emphasis, that the two offences therein described are the same; consequently, the duty of the physician in his relations with each case, that is, whether the woman dies or survives the operation, is the same.

That Court has also decided that dying declarations are admissible in evidence only in cases of homicide; and, as the same Court has further declared, as above stated, that criminal abortion is not, in this State, homicide in any of its forms, it necessarily follows that the dying declarations of the victim of an abortion are not admissible in evidence at the trial of a person charged with the latter crime. And as it frequently happens, from the peculiar circumstances surrounding cases of this sort, that this is the only evidence, it would be worse than useless to make any exposure of a matter, the only effect of which would be to bring additional shame and disgrace upon the innocent family and relatives of the victim, with no possibility of convicting the accused.

Hence will be seen the wisdom of first informing the prosecuting officer of the county rather than the coroner or the police authorities. For it is the duty of the prosecuting officer, or district attorney, as he is called in this State, to prosecute offenders against the law. He is skilled in the law and able to weigh such evidence and judge of its probative effect; and if, for any legal reason, such as stated in the preceding paragraph, the facts constituting the information be either incompetent or insufficient as evidence, that reason will be known to the district attorney, and unnecessary public exposure will be avoided. On the other hand, the subordinate officers referred to are not required to be skilled in the law; their jurisdiction is limited and the sphere of their official duty circumscribed, so that it often happens that unnecessary publication of such facts result from a mistaken notion of their duty. Moreover, they are, in a sense, merely a part of the machinery in the hands of the district attorney, that may be employed by him in bringing criminals to justice.

From all of which it is clear that the proper course for the physician, in every instance, is to lay the information that comes to his knowledge, of a criminal abortion, before the district attorney. This may be done either in person or by letter to that officer, setting forth the facts, and it then becomes his duty to take whatever subsequent action such

facts may seem to warrant. In any event, the physician is thus relieved of further personal responsibility in the matter.

Furthermore, such a course on the part of a physician does not render him liable, either to the imputation of being an informer or a detective, nor is he chargeable with a violation of professional confidence. The reason is, that the Legislature has declared criminal abortion to be a felony, and to conceal a felony is an offence known as misprision of felony, which, under the Criminal Code of Pennsylvania, renders the person guilty thereof liable, if convicted, to be punished as an accessory after the fact, by a fine not exceeding five hundred dollars and to undergo an imprisonment, with or without labor, at the discretion of the court, not exceeding two years.[1]

Consequently, the physician, who, in the face of the powerful and persuasive influences against disclosure that are sometimes brought to bear upon him in these cases, and who, although imbued with a fine sense of the sacredness of the relation of physician and patient, and the obligation thereby imposed to preserve the secrets thereof inviolate, yet yields obedience to the higher law, not only discharges a high and solemn duty to the public by making such information as will aid in the punishment and prevention of a crime, so dark and hidden, that strikes at the very foundations of society, but also relieves his own conscience from any share in the guilt of the principal offender, and at the same time pursues the plain course marked out by law to shield himself from any liability to prosecution by reason thereof.

The observance, therefore, by the medical practitioner of these simple prudential measures, either when it becomes necessary to induce premature labor or when he is called to attend the victim of an abortion will not only free him from the liability of any criminal charge but commend him in the eyes of the law.

1 Act, March 31, 1860, § 180; Purdon's Digest, § 356, p. 469.

A DISCUSSION OF THE LEGAL ASPECT OF CRIMINAL ABORTION.*

WILLIAM W. PORTER, Esq.

It is with hesitation that I participate in the discussion of this subject, because the topic is somewhat remote from the matters which daily engross those of us of the legal profession who devote our attention to questions of a so-called civil character. When, however, we go down to the foundation of the matter, there is little difference in kind between proceedings for the punishment of crime and the settlement of civil disputes. A crime is simply a wrong, a deflection from moral rectitude; but a wrong of so heinous or grievous a character as to affect the public as well as the individual upon whom the direct injury is inflicted.

The great Commentator on the common law has said "in all cases the crime includes an injury. Every public offence is always a private wrong and somewhat more. It affects the individual, and it likewise affects the community."

The crime of abortion, or attempting to procure abortion, is a wrong committed by one individual upon another, but it is of so horrible a character that a punishment for its commission has been inflicted by legislation in order to prevent its frequent occurrence.

The legislation in Pennsylvania upon the subject of criminal abortion is contained in two sections of the Act of March 31, 1860, known as the Penal Code. It is applicable to the case of death following an attempt to procure abortion. The full text of the section is as follows:

Section 87.—If any person shall unlawfully administer to any woman, pregnant or quick with child, or supposed and believed to be pregnant or quick with child, any drug, poison, or other substance whatsoever, or shall unlawfully use any instrument or other means whatsoever, with the intent to procure the miscarriage of such woman, and such woman, or any child with which she may be quick, shall die in consequence of either of said unlawful acts, the person so offending shall be guilty of felony, and shall be sentenced to pay a fine, not exceeding five hundred dollars, and to undergo an imprisonment by separate or solitary confinement at labor not exceeding seven years.

*Read before the Philadelphia County Medical Society, March 22, 1893.

Section 88 of the same act provides for the penalty to be imposed for procuring or attempting to procure abortion where death does not ensue. The full text of the section is as follows:

> If any person, with intent to procure the miscarriage of any woman, shall unlawfully administer to her any poison, drug, or substance whatsoever, or shall unlawfully use any instrument, or other means whatsoever, with the like intent, such person shall be guilty of felony, and being thereof convicted, shall be sentenced to pay a fine not exceeding five hundred dollars, and undergo an imprisonment by separate or solitary confinement at labor not exceeding three years.

In so distinguished an assembly of the medical profession little interest can be felt in any attempt to interpret the meaning of these legislative enactments. No reputable member of the medical profession would consent to participate in the commission of so heinous a crime as attempting criminal abortion. Were the statute book barren of any enactment there would be no danger from such a source of any transgression of what a true moral sense imposed. I do not, therefore, propose to enter upon any discussion of the direct provisions of this act. It may be well, however, to learn what the Supreme Court said in an opinion rendered ten years before the adoption of the present existing legislation, in the case of Mills *vs.* Commonwealth, 13 Pa. St. 933, defining in what the crime consists. The opinion of the court was delivered by Mr. Justice Coulter. He says "The error assigned is that the indictment charges the defendant with intent to cause and procure the miscarriage and abortion of the said Mary Elizabeth L——,instead of charging the intent to cause and produce miscarriage and abortion of the child. But it is a misconception of the learned counsel that no abortion can be predicated of the act of untimely birth by foul means.

Miscarriage, both in law and philology, means the bringing forth the fœtus before it is perfectly formed and capable of living; and is rightfully predicated of the woman, because it refers to the act of premature delivery. The word abortion is synonymous and equivalent to miscarriage in its primary meaning. It has a secondary meaning, in which it is used to denote the offspring. But it was not used in that sense here, and ought not to have been. It is a flagrant crime at common law to attempt to procure the miscarriage or abortion of the woman, because it interferes with and violates the mysteries of nature in that process by which the human race is propagated and continued. It is a crime against nature which obstructs the fountain of life, and therefore, it is punished. The next error assigned, is that it ought to have been charged in the count that the woman had become quick. But, although it has been so held in Massachusetts and some other States, it is not, I apprehend, the law in Pennsylvania, and never ought to have been the law anywhere. It is not murder of a living child which constitutes the offence, but the destruction of gestation by wicked means and against nature. The moment the womb is instinct with embryo, life and gestation has begun, the crime may be perpetrated. The allegation in this indictment was therefore sufficient, to wit: 'that she was then and there pregnant and big with child.' By the well-settled and established doctrine of the common law, the civil rights of an infant *in ventre sa mere* are fully protected at all periods after conception."

The only interest which the reputable practitioner can have in the subject of criminal abortion may be discussed in answer to two questions, both arising out of a professional call to attend a patient upon whom an abortion has been attempted. In such a case the medical attendant is interested to know:

I. What personal risk he assumes in attending upon such a case.

II. What moral or legal obligation he incurs in connection therewith.

I. He does incur some risk in such a case.

1. He may, unless he steers his course carefully, be involved as an accessory after the fact.

The Act of March 31, 1860, also contains in Section 180, the following provision:

> Every principal in the second degree, or accessory before the fact, to any felony punishable under this act, for whom no punishment has been hereinbefore provided, shall be punishable in the same manner as the principal in the first degree is by this act punishable. Every accessory after the fact to any felony punishable under this act, for whom no punishment has been hereinbefore provided, shall, on conviction, be sentenced to a fine not exceeding five hundred dollars, and to undergo an imprisonment, with or without labor, at the discretion of the court, not exceeding two years. And every person who shall counsel, aid or abet the commission of any misdemeanor, punishable under this act, for whom no punishment has been hereinbefore provided, shall be liable to be proceeded against and punished as the principal offender.

What an accessory means in the case of an abortion it is difficult to say, inasmuch as the books seem to contain no precedent, and the courts have given no expression of opinion. While this fact adds to the difficulties of discussion and determination, it also may be looked upon as an evidence that the danger to the physician in such a connection is small, inasmuch as none seem to have been pursued by litigation.

It practically means that the physician must be careful when called in to treat a patient upon whom such an operation has been performed, that he shall do nothing to assist in the purpose of the perpetrator of the operation, except that which is necessitated by the condition of the patient, to save life or restore health. The best safeguard in a case where the physician is compelled to complete the operation (if such a case ever arises) is to have another reputable practitioner in consultation and present at the time of treatment.

2. One who has committed an abortion resulting in death cannot be convicted of murder. In the case of Commonwealth *vs.* Railing, 113 Pa. St. 37, decided in 1886, it was held that the 87th Section of the Criminal Code took the crime therein specified, namely, procuring miscarriage resulting in the death of the child or woman, out of the class designated as murder, and made it a felony of lesser grade, and prescribed the punishment therefor; hence if one cause the death of a woman in attempting to procure miscarriage, he cannot be indicted for murder.

3. The physician in cases of abortion, may by the action of evilly-disposed persons be involved in the commission of a crime perpetrated wholly by another. When a physician is charged with such a crime the evidence of one who is charged as a co-defendant may be used against him.

A somewhat recent case which has appeared in the reported decisions of the Supreme Court of Pennsylvania, is that of Cox *vs.* Commonwealth, 125 Pa. St. 94. The decision was filed March, 1889. This was the case of a Dr. Cox, of Easton, Pa., who was accused of having procured an abortion upon the person of a young unmarried woman who was taken to Easton for the purpose of having the operation performed. There was little to connect the physician with the commission of the act (except the fact that he had engaged a nurse for the patient in advance of her arrival in Easton), beside the testimony of one Evans, who was indicted with the physician as a party to the crime. Evans was called as a witness by the Commonwealth, and testified that he had made arrangements with Dr. Cox to perform the operation at Easton, and that he subsequently accompanied the young woman to Easton to a hotel. He knew nothing of the actual operation. Upon this testimony, in large measure, the Doctor was convicted of the offence, the Supreme Court, by Mr. Chief Justice Paxson, conceding that juries may convict upon the uncorroborated testimony of an accomplice.

A physician *might* thus be convicted on the uncorroborated testimony of a self-confessed accomplice, provided such accomplice was able or willing to testify to all of the facts leading up to a commission of the act and to the act itself. In the case cited, the commission of the act itself was independently proven.

An evilly disposed man *might*, in order to trouble and perhaps blackmail a physician, falsely confess himself an accomplice, and thus, practically unsupported, secure a verdict of guilty against a physician whose only connection with the case might have been treatment of a patient who had committed the crime upon herself. Again, the patient herself might be a confederate and expect to be a participant in the reward which the blackmailer hoped to force from the physician for silence. It is true that an alleged accomplice must persuade the jury by whom the case is tried that he is telling the truth, and it is difficult to so persuade a jury without some corroborating evidence. I speak here, not of what is likely, but what is possible to happen. There may be blackmailers who would go so far. The method to avoid the danger is the association of a consulting physician immediately on being called to treat the case, or if it shall seem to the physician an aggravated case of wrongdoing by a person other than the sufferer, to report the case to the police authorities.

4. A most important question was for some time an open one, namely, whether the dying declarations of a person upon whom an abortion has been committed are admissible in evidence. It was supposed to be set at rest by the case of Railing *vs.*

Commonwealth, 110 Pa. St. 100, decided in 1885, where it was distinctly held that such declarations could not be accepted in evidence on the trial of one charged with the crime.

I observed by the Philadelphia *Public Ledger* of this morning that an act has been introduced in the Senate of Pennsylvania, making dying declarations admissible as evidence. I have been unable to secure a copy of the proposed act.

In view of the fact that such a bill is, or soon will be, under discussion, a quotation of some length from the opinion of Mr. Justice Green, of the Supreme Court of Pennsylvania, delivered in the case above referred to, showing the reasoning by which the result was reached by the court, may be permissible. He says:

"The principal question in this case is that which relates to the admissibility of the dying declarations of Annie F———. The defendant was charged with administering to her a drug with intent to procure a miscarriage, and it was also charged that her death resulted as a consequence. There were four counts in the indictment, and all of them charged the death of the woman as a result of the defendant's unlawful act. It is entirely unquestioned that dying declarations are admissible only in homicide cases, as a rule, and that the death of the deceased must be the subject of the charge, and the circumstances of the death the subject of the declaration: 1 Greenl. Ev., Sec. 156, 13th ed., Whart. Cr. Ev., Sec. 276; Whart. Am. Cr. Law, Sec. 669 et seq. It is equally unquestioned that there is no grade of homicide involved in this case, the offence charged being the one commonly know as abortion. It is argued, however, with much force, that the death of the woman, when it occurs, is a necessary ingredient of the offence under our statute, and therefore brings the case within the rule above stated. It is claimed that the death is in part, at least, the subject of the charge. In one sense this is true. But the question is, Is it so in the real sense of the rule which controls the subject? That inquiry involves the necessity of an examination of our criminal statute against abortion. It consists of two sections, the 87th and 88th of the Criminal Code of 1860." Here the learned judge states the substance of the two sections. He then continues: "In the last case the offence is complete without the death of the mother or child. In both cases the grade of the offence is the same, felony. In both, the acts done by the prisoner are the same. In the first, if those acts are followed by the death of the mother or child as a consequence, that is, in the relation of effect to a cause, a difference results in one of the penalties imposed—the possible fine is the same, but the possible imprisonment is longer, seven years, instead of three. The facts which constitute the crime are precisely the same in both cases, to wit., the administering the drug, or using the instrument, with intent to procure a miscarriage. It follows that the death is no part of the facts which go to make up or constitute the crime. It is complete with the death or without it. The death, therefore, considered in and of itself is not a constituent element of the offence. It may happen or it may not. If it does not happen a certain possibility of penalty follows. If it does happen, the same character of penalty results, but with a larger possibility, not a certainty, in one of the items. This seems to be a precise expression of the difference between the cases provided for in the two sections. This being so the question recurs, is the difference between the two of such a character as to change the application of the rule of law relating to the admissibility of dying declarations? Of course, they are not admissible if death does not result as a consequence from the unlawful acts. Therefore if the woman should subsequently die from some entirely different and independent cause, her dying declarations in relation to a prior miscarriage would be clearly incompetent. In case she does die in consequence of the unlawful acts, the crime charged and tried is not homicide in any of its forms, but the felony of administering a drug or using an instrument with intent to produce a miscarriage. In its facts and in its essence it is the same crime that is charged and tried if no death results. The death, when it occurs, is an incident, the sole purpose of which is to determine whether the imprisonment of the defendant may be longer than when death does not occur. The facts which constitute the crime may not be proved by any declarations of the woman when death does not follow, or when it follows from

some other cause. Why, then, should the very same facts be proved by such declaration when death does result? Not because it is a homicide, and the rule as to dying declarations admits them in such cases ; because it is not a case of homicide in any point of view. Not because the death is the subject of the charge, for the charge is the attempted or accomplished miscarriage by means of a drug or instrument. That crime is as fully completed without the death as with it. The death, therefore, is not an essential ingredient of it. Its function under the statute, when it occurs as a consequence, is not to determined the *factum,* or the character, or the grade of the crime, but the character of the penalty that should be endured by the criminal. Of course, if the statute had declared that when death resulted the offence should be manslaughter or any other grade of homicide, the case would be entirely different. Then the death would be an essential ingredient of the offence, and would be the subject of the charge, and the rule as to dying declarations would apply. But such is not the case, and we do not think it wise to enlarge the operation of the rule so as to embrace cases other than homicide strictly. The objections to the admission of such testimony are of the gravest character. It is hearsay, it is not under the sanctity of an oath, and there is no opportunity for cross-examination. It is also subject to the special objection that it generally comes from persons in the last stage of physical exhaustion, with mental powers necessarily impaired to a greater or less extent, and at the best, represents the declarant's perceptions, conclusions, inferences, and opinions, which may be, and often are, based upon imperfect and inadequate grounds. Nor is the reason ordinarily given for their admission at all satisfactory. It is that the declarant in the immediate presence of death is so conscious of the great responsibility awaiting him in the near future if he utters a falsehood, that he will, in all probability, utter only the truth. The fallacy of this reasoning has been many times demonstrated. It leaves entirely out of account the influence of the passions of hatred and revenge which almost all human beings naturally feel against their murderers, and it ignores the well-known fact that persons guilty of murder, beyond all question, very frequently deny their guilt up to the last moment upon the scaffold."

II. We come now to the second grand division of the subject, namely, the obligations resting upon the physician or surgeon who is called upon to attend in a case of criminal abortion. Having satisfied that the injury to the patient has not been self-inflicted, should the physician conceal the truth or make it known?

In answering this question he must consider:

1. His duty to his patient.
2. His duty to his profession.
3. His duty to the public at large.

In discussing these matters we are met with ethical rather than legal considerations. I have been able to find nothing as a guide, either in legislative elements or in cases decided by the courts.

Therefore, what is here said is only by way of suggestion and discussion. The determination of the questions of duty in each case must be relegated to the forum of individual conscience.

1. The duty to the patient.

Take the following as an illustration: A reputable head of a family has called in the services of the family doctor to attend a sick daughter. The physician soon has evidence sufficient to indicate a case of criminal abortion. He learns from the patient in confidence that a certain physician, or her lover, or both, have assisted in producing her serious condition.

There is a plain duty to the girl and to her father, to prevent scandal, and yet an act has been committed which has been pronounced by the State law a felony. Silence means that the criminal must go unpunished. It is a condition that, unfortunately, men of the medical profession have sometimes to face.

There is no statutory penalty imposed for silence. Can it be doubted that the physician in such a case is justified in holding his peace *so long as a fatal termination of the illness is not impending.*

Information received by counsel from his client is regarded by the law as a privileged communication, and he cannot be compelled to divulge the information so received. In the case of a physician, however, the rule of the common law seems to be that he can be compelled to divulge communications received from his patient. There is to my mind, in this distinction between the professions, an il-

logical discrimination, and I believe that in most cases a physician would rather undergo the punishment imposed by a court for silence than violate the professional confidence. Some of the States (for example, New York) have adopted legislation making confidential communications between patient and physician privileged, and I would respectfully suggest that measures to secure such legislation in Pennsylvaina might well be taken, both for the protection of the medical practitioner and the sanctity of the professional relation.

2. The duty to the profession.

A loyal physician holds his profession in high honor. To have men within its ranks who will lend themselves to the commission of crime is a disgrace. Not to punish them will only lead them to greater confidence in their ability to escape punishment and encourage them in their infamous behavior.

This consideration has weight in determining the course of duty. The conclusion, therefore reached, is that where the professional obligation to the patient will permit, duty to the profession must impel disclosure (at least to the profession, and better, to the police authorities) of the name of the wrongdoer.

3. What of the public generally?

The physician is a citizen. He owes a citizen's duty to the community at large. If he or any other citizen knows that a crime has been committed by a particular person, and fails to bring the criminal to justice, he falls short of his obligation. It is true that in the smaller offences (especially those involving property) we can hardly be expected in all cases coming under our knowledge to see that each wrongdoer is punished.

When the urchin, with our eyes upon him, pilfers an apple from the corner stand, we do not feel that we have committed a grievous sin of omission if we do not personally inform the first policeman, or if we do not ourselves pursue the little culprit to his capture, in order to insure his punishment.

If, however, we see serious bodily injury inflicted, or murder impending, who of us would not, at personal inconvenience or peril, see to the capture and punishment of the perpetrator.

If the patient is to recover from the effects of the crime perpetrated on her, and the injury is slight, by analogy, there is some justification for silence.

If she is to die, and the injury is thus greater, silence is not only dangerous, but it is without justification. It is not easy, certainly, to justify this conclusion, since, under the act, the criminal intent is the same in both cases, the only difference being in the result. Death from criminal abortion entails upon the attending physician who conceals it, the necessity for a written lie in the certificate which he is required to give by the registration acts. Should he certify the true cause of death, he cannot avoid publicity, and may be subjected to censure for failing to report the case sooner to the authorities. If he certifies falsely and is discovered, he runs the risk of being charged with the commission of the crime itself.

Finally, the rules of conduct may be summarized thus:

1. When called to such a case, immediately, on suspicion of criminality being aroused, call in another physician to your aid.

2. If consistent with your primary duty to the patient, report the case (even though not likely to be fatal) to the District Attorney.

3. As soon as a fatal result appears likely, report the case to the District Attorney, who (if requested) will doubtless never let you be known as his informant, but you will be enabled by other means of proof to bring a criminal to justice.

4. If you have not reported the case, and the end is death, do not be led into the giving of a false certificate of death.

In conclusion, it will be seen that what has been said is almost wholly discursive. It would ill-become a member of our profession to assume to instruct in the ethics of the sister profession. It cannot be truthfully said that the legal profession has a higher moral standard than the medical, and to each conscientious member of both must it be left to do the right as to conscience and good morals it shall appear.

"JOHN MCDUFFY, charged with vagrancy. What can you say for yourself?"

"Not guilty, your Honor."

"What is your business?"

"A Professor of bacteriology."

"Ten dollars and twenty days—no visible means of support."

SOCIETY REPORTS.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Meeting of March 22nd, 1893.

DISCUSSION ON CRIMINAL ABORTION.

HON. GEORGE S. GRAHAM: I should hesitate to add anything to this discussion were it not for the fact that there are one or two points on which I differ with those who have preceded me. I have nothing to say about the definition and the law; both have been thoroughly and amply stated. I want to call attention, first, to the question of dying declarations, and second, to the attitude of the physician with relation to this offence. I wish to call the attention of this organization to the bill that is now pending in the Legislature of Pennsylvania, intended to cover a gap in the criminal law through which more men escape conviction who justly deserve it, than through any other. I am not here to criticise the ruling of the Supreme Court, but the effect of that ruling which excludes the dying declaration from admissibility as a piece of evidence. In conversation with a gentleman, a member of this society, he suggested to me the desirability of some such law, and in pursuance of that suggestion I prepared the bill which was introduced yesterday, and therefore, the objurgations of my friend fall upon my head. The bill is plain, simple, and to the point; it provides that in all cases of prosecution for abortion where death results, the dying declaration may be admitted as evidence. It does not change the rules under which that declaration is admissible. It simply remedies what was disturbed and broken by the decision in Commonwealth *vs.* Rauck. The question was discussed in that case whether or not such declarations were admissible in prosecutions for abortion where the person died. In our county we had taken the ground that this crime involved an inquiry into the question of a death, and that, therefore, the dying declaration was admissible. We were able to convince the Judges of our Courts of Quarter Sessions that that was the true view, and there were three decisions sustaining that view. The case referred to went up from Dauphin County, and the Supreme Court reversed the decisions in the county courts and held that because of the passage of the Act of Assembly which called abortion a felony and defined it as the crime of abortion, it was withdrawn from the list of homicides, and that dying declarations were only admissible in cases of homicide. It is conceded by all lawyers that abortion did, at common law, come under the classification of homicide; a person might have been convicted at common law, according to the circumstances, of murder in the second degree or of manslaughter. It was owing to the passage of that Act, which lifted criminal abortion out of the category of homicide and placed it in a new relation to the criminal code, that the Court held that dying declarations in this kind of a case were not admissible. My friend quoted the *obiter dicta* of the Judge. That is no part of the decision and no part of the authority of the case itself. Speaking of dying declarations on the broad ground whether they should be admitted or not, the Judge said that they are the merest hear-says, and should not be permitted to appear in evidence to fasten crime. Here is an anomaly to which I direct your attention. While the Judge reasoned that they should be excluded in a crime which had been lessened and made of smaller magnitude in the eye of the law, he admitted that in the higher and graver crimes, such as murder and manslaughter, the necessity of society demanded that dying declarations should be admitted. Mark the ground on which they are to be admitted, to wit, the necessity of society. If there is a single instance of criminality in which the necesity of society demands the admission of dying declarations as a piece of evidence, it is in that most secret of all offences, the crime of abortion. Now, surely the reasoning of that learned Judge is utterly fallacious in another point. Said he: "The argument usually employed that the solemnization of the thoughts at the

idea of dissolution will cause the person to speak the truth, is not applicable, for we leave out the element of the passions of hatred and revenge." Why, gentlemen, by a parity of reasoning you would destroy all testimony, for the same line of argument, logically pursued, would make you exclude the evidence of every witness. I submit that the reason upon which dying declarations are admitted has a good foundation. It is well-known that the approach of death solemnizes the thoughts of every man or woman. They may laugh and scoff at death in health, but I tell you when they come face to face with the hour of dissolution, it must be the rare exception indeed, in which the storm of passion can dominate the soul and make one commit perjury of the worst kind, standing on the threshold of the future. I say, therefore, that dying declarations, if admissible in homicide of the higher grades, should be admitted in this offence of abortion, and I come to ask your body to pass some resolution asking for such a law.

I want to say a word about the duty of the physician. I appreciate what has been said by Dr. Parish and Mr. Porter with regard to the sentiment that gathers about the relationship of physician to patient. The picture drawn by Mr. Porter appeals to the setiments of us all, but there is only one test, and it is not the test of sentiment. It is, is the thing intrinsically right, or is it wrong? We are not considering what the law ought to be, but what it is. It is the duty of every citizen, if he knows that a crime has been committed, to make it known. If an offence is grave enough for the law to recognize and fix a penality on, you have no right to set that law aside and say that it is too insignificant for you to notice. The physician can only escape censure or prosecution by revealing the fact that an offence has been committed. It would be no defence in a court of justice for a physician to say that he kept it quiet because he wished to be a shield between a suffering female and the disgrace that might ensue. Of course, in the graver cases where death ensues, it is imperative that the matter should be reported. I ask you, laying aside sentiment, to point out a single reason why there should be a distinction between the cases where death follows and those where death does not follow. The distinction is attempted to be drawn because one is of less importance, but my answer to that is that the law does not say that it is the duty of the citizen to report only important criminal cases. Besides, both are felonies. It is his duty to report every criminal case, and the physician who learns of such a crime and conceals it, becomes an aider and abettor in the crime. Surely no man can rise and say, that on the basis of sentiment he has a right to become a criminal. That is the result, for if by concealment he becomes a *particeps criminis*, surely the duty to speak must be regarded as absolute.

Coroner Samuel H. Ashbridge: I shall not enter into this discussion from a medical or a legal standpoint, but merely from that of practical observation and with reference to the rules that we lay down in our office for the purpose of conducting cases of the character under consideration. The question has been raised whether or not these cases should be reported. During the year we have hundreds of cases reported to our office by physicians, who state that the patient is suffering from peritonitis, which they believe to be the result of operation for the induction of abortion. Such information is always treated as confidential, and the name or residence of the patient is not asked. I say to the physician that if the patient dies and he believes that the death is due to criminal abortion, it is his duty to report it. I am glad to state that there are few deaths in comparsion to the number of cases reported.

Abortions are prevalent in all communities; but I want to say, to the credit of our city, that there are fewer abortions in Philadelphia than in any other great city on this continent. One reason of this is, the high moral character of the medical profession of this city. It is rare that you find a graduate of a regular reputable medical college who will stoop to the crime of abortion.

I agree with the District Attorney in regard to the enactment of a law making dying declarations admissible. It is very difficult for us to procure unmistakable evidence unless from the victim herself. Crimes of this character are of such a secret nature that often they are only known to the victim and the perpetrator. In Philadelphia, at the present time, detection of this crime is less frequent than at

any other period, according to my knowledge. I cannot say that it is because more skill is used, but there does not seem to be any lessening of the offence. We have the opportunity of learning many things that are never published to the world —in fact, it is not our duty as public officials to reveal scandals that may come to our knowledge. If the majesty of the law has been maintained we feel that we have done all that is incumbent upon us.

Dr. Harris A. Slocum: I agree with Dr. Parish, that the diagnosis of criminal abortion is a difficult matter, except in cases of puncture, or where there are evidences of laceration where accident can be excluded.

The responsibility of the physician in treating these cases is a matter that has been brought to my mind a number of times. The District Attorney has said that it is the duty of the physician to report these cases; but if the names of the patients are insisted upon I think that there are few physicians who would not object. We know that the counsel for a criminal is permitted to retain the facts given to him by his client. Would a lawyer who was not counsel for the prisoner, but who was told the facts, be permitted to retain them?

Mr. Graham: He would have to tell them. The law says that the counsel shall not divulge the facts told him by his client, but it says the physician shall tell those given him by his patient.

Dr. Slocum: I have always been under the impression that facts of this kind communicated to a physician were to be held sacred and not divulged, and I think the majority of physicians hold the same opinion. Surely the law is unjustly discriminating when it extorts such evidence from a man whose whole duty is to relieve suffering or save life, and who is called, in an emergency, for that purpose, and that alone; yet the very one whose duty it should be to contribute to the administration of justice, and who is officially stamped for that purpose, is permitted to have knowledge of incriminating facts and to keep silent about them, even during the crucial trial in court, when every effort is apparently being made to know the truth and the whole truth.

I am glad, however, to get this official information respecting our duty in these cases, in the sight of the law. It is a point that many of us have wished to be certain about. We now know that we are confronted by the unpleasant alternatives of breaking the law or of betraying the trust reposed in us by becoming informers, and it is probable that every physician in Philadelphia, even those of the highest reputation and of the greatest integrity, will fall into one line or the other. It seems to me that in the cause of right and justice, that portion of the law which relates to this subject should be so modified as to leave some latitude to the discretion of the physician. No class of men, at the present day, is doing so much to prevent this crime as is that of medicine, and yet a representative of that class is liable, at any time, and against his inclination, to become either a criminal, in the eyes of the law, in being an "accessory after the fact," or a betrayer, in the eyes of a patient.

Dr. Eugene P. Bernardy: No matter at what stage or period of pregnancy the operation for criminal abortion is performed, *it is murder*. I know many will differ with me; the theologian and lawyer, more especially the layman. With what insignificance the idea of animate existence of the fœtus in its early stages is held by them. We, as physicians, know from the poor, ignorant, hard-working woman in our courts and alleys, to whom another child means more care and harder work, to our society women of the highest mental attainments, to whom a child is a bother in the way of her social duties. Women who would not cause the least unnecessary pain to be inflicted upon any human being or beast, will without the slightest hesitation or shame, ask that they be relieved of their (to them) troublesome burden, and, when refused, are surprised and become indignant, and reply: "Why, it is only a month old, and it certainly is not alive." If not alive, could it continue its growth, until, eventually, from the seemingly microscopic inert mass, springs forth that wonderful creation, man? I ask again, could a dead mass perform such an act? To grow, we must be animate; to be animate, we must have vitality. Life means a soul. At what time of pregnancy does this mystical union of the animal and spiritual natures of the human being occur? At the moment of conception, quickening, or birth? On this point theologians are divided. Many be-

lieve that the soul enters the body at the moment of quickening, and previous to that moment the fœtus was soulless. Others believe that the soul is imparted to the child at the moment of its birth. I cannot believe that God performs such imperfect work. I believe that the embryonic mass, surrounded by the deciduæ, vera and reflexa, has as much a soul as the child on the day of its birth, and on this conviction have I always practiced, looking upon the performance of a criminal abortion as being nothing less than murder.

Quickening is a mere circumstance in the physiological history of the fœtus. It is uncertain in its periods, sometimes making itself sensible at three months, at other times four or five months, and in a large percentage of cases not at all. Many women have been delivered of children that have never quickened. Are these children to be considered as soulless?

On this very point were laws made in England under George III, in 1803, when it was ordained that the procuring of an abortion of a female *not quick* with child is felony, to be punished by fine, imprisonment, or exposure in the pillory, or that the criminal may be publicly or privately whipped, or transported beyond the sea for any term not exceeding fourteen years. The same act also declares that to procure abortion after quickening is murder, to be punishable with death. This law has of recent years been somewhat modified, and at present the law in England is that the procuring of an abortion at any period of pregnany is a felony, to be punished by transportation for fifteen years or for life, or by imprisonment for three years.

The laws with regard to the punishment for this crime vary in the different countries, some imposing punishment more or less severe, according to the stage of pregnancy. The laws of Pennsylvania look upon the act as criminal in all its stages. On the trial of a murderer for performing a criminal abortion which resulted in the death of the mother, the judge, in charging the injury, declared that "at common law the crime is murder. Every act of procuring an abortion is murder, whether the person perpetrating the crime intended to kill the woman or merely feloniously to destroy the fruit of her womb." The procuring of an abortion is "a base and unmanly act;" it is a crime against the natural feelings of man, against the welfare and safety of woman, against the peace and prosperity of society, and against the Divine command, "Thou shalt not kill." It is murder.

WILLIAM W. PORTER, ESQ.: I have not had an opportunity of reading the bill to which reference has been made. I am not here to oppose it; but I would caution the medical profession to think twice, or at least once, before it indorses it. The adoption of such a law amounts to this: that when you are attending a case of this kind, where death seems to be approaching, you must metamorphose yourself, change from the medical practitioner to the practiced detective, or run to a public officer, in order that the dying declaration may be obtained from one who has intrusted to your care body, health, and even that which is more sacred—the secret of her vanished honor. I throw this out as a suggestion. I should like to see the act before I say anything directly concerning it.

The District Attorney has dwelt upon the duty of the physician in regard to reporting these cases. I have listened to hear what punishment is to be inflicted for silence, and I have listened in vain. Is silence criminal? God forbid! It is golden. There is in the criminal code no penalty for silence, impelled by a sense of honor, in such cases.

MR. GRAHAM: I would suggest to my friend that there is such a thing as misprison of felony or the concealment of a felony. There is a duty upon the citizen to disclose a felony that comes to his knowledge. The question is one of abstract duty; sentiment cannot overcome it. I have not discussed the question whether the lawyer and physician should be put on the same basis. The present position of the physician under the law is different from that of the lawyer. The law has said that the lawyer's relation with his client is confidential, while the physician is not protected. So long as this is the case, the duty of the physician to report a felony is absolute.

MR. PORTER: When we talk about the right of the lawyer to keep silence, it means that if, on the witness stand he is asked a question, he may decline to reply on the ground that the communication was confidential from a client. If the

physician, on the stand, declines to reply, the court may punish him. This, however, is totally different from saying that a physician, *not* on the witness stand, who is repository of a secret, is bound to divulge it. Even if he knows of the crime as a citizen there may be strong grounds of justification in withholding such knowledge, but when the knowledge is gained through the professional relation, if you can discriminate in good morals, between the rights of the lawyer and those of physician, I cannot.

My First Case.

The following from the *Medical Age* is from the pen of Dr. G. A. Williams, and is reproduced in full: My first case of obstetrics was somewhat unique, but I had attended two sessions and considered myself quite skillful and scientific. My preceptor took me in charge one day, and introduced me to an old colored lady who was about to be confined. This lady carried considerable weight with her—I believe she weighed about three hundred pounds—and, as the weather was very hot, the case proved to be quite interesting. I remembered having read somewhere that the doctor should sit down quietly and read a book, wait for matters to develop, and not be too meddlesome. I found an old almanac, but could not read a word of it, for I had an attack of globus hystericus; and as I was trembling and gasping for breath, two old colored ladies came in—one of them was Ol' Auntie Smith, who was known as a great nurse. Ah! but wasn't this an angel's visit? The patient now had strong pains, and the nurse said: "Doctah, is you gwine to try a pain?" Never having seen a case before, and not understanding her, I tried to look wise and answered: "Bimeby." In a short time the labor was more advanced, and the old nurse called upon me again: "Please, doctah, yo' bettah 'zamine dis yer lady." Accordingly, I passed my hand somewhere in the region of the vulva, and suddenly there was a tremendous gush and splashing sound which almost demoralized me; still I congratulated myself upon my bravery in this supposed case of "terrible hemorrhage," and, not wishing to alarm the bystanders by exposing my ghastly, blood-stained hand and arm, I remained petrified, as it were, in the same position. Just then the old nurse said: "Doctah, I reckon the wattahs is done broke, ain't dey?" Ye gods! what a relief this was to me! I suddenly remembered that there was such a thing as the rupture of the membranes, and, withdrawing my hand, it is needless to say I had more respect for that old nurse than for any lady I ever saw. The baby was born immediately, and, with some encouragement and instructions, I recovered myself sufficiently to tie the cord. The baby was placed in a cradle, and the nurse exclaimed: "Yo' pufessional gen'lmen ginally waits 'bout a half ouah fur de afterbuf, don't you, doctah?" "Yes," said I, but, owing to the great strain upon my nerves, the reaction had now come on, and I hadn't the remotest idea of what the old nurse meant. We didn't have to wait, however, for the afterbirth came away in a minute or two, and the patient herself exclaimed: "It's done come, Auntie; it's done come." The old nurse removed the afterbirth and soiled clothing carefully, and took a nice clean bandage and applied it snugly around the patient. And this was the end of one of the easiest and most natural cases I ever attended. While washing my hands in an adjoining room, I over-heard the old nurse saying: "Dat ar young gen'lman's a mighty fine doctah; he 'minds one ob de doctahs down Souf, wen I lived in ole Virginny." These good old souls have long since passed away and crossed the river where they are now resting under the shade trees.

Inhalation for Whooping Cough.

[Beall.]

℞

Thymol	gr. xx.
Phenic acid	ʒss.
Essence of sassafras	
Essence of eucalyptus	
Essence of turpentine	
Liquid tar	aa ʒii.
Sulphuric ether	ʒi.
Alcohol *ad*	ʒiii.

S. Pour 30 drops on a handkerchief and tie around the neck of the child. Repeat the inhalations every two or three hours.

—*Union Medicale.*

Syphilitic Ulcers.

Dr. Mauriac prescribes an ointment composed of

℞

Hydrarg. chlor. mitis,	
Zinc oxidi,	aa gr. xv.
Petrolati,	ʒvj.
Pulv. amyli,	gr. xiv.

M. Ft. ungt.

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SATURDAY, APRIL 29TH, 1893.

EDITORIAL.

EXTRA-UTERINE PREGNANCY.

In the March issue of the Annals of Gynecology there appear two articles dealing with ectopic gestation that are well worthy of more than passing notice. The first paper reports four cases dealt with after modern surgical methods; the second paper is the notes of a case that occurred in the practice of an eminent member of the profession in the beginning of the present century. The contrast between the two is great. On the one hand there is the short quick removal of the misplaced product of conception, and on the other is the old waiting policy, resulting in an invalidism of nine years and ending in the discharge of the fœtal bones from the bladder with a fistulous tract between the bladder and rectum.

The abdominal surgeon has good reason to be proud of the advances of his science and in no direction more than that of extra-uterine pregnancy. A few years ago the coroner's physician of Philadelphia presented a statement showing the number of women who perished from this accident. A short time afterwards he was obliged to confess that the number was being decreased greatly every year by the life saving methods of the surgeon.

In the practical consideration of the subject it matters little whether such a condition as ovarian pregnancy does or does not exist. It has been denied on one hand by competent observers and as earnestly insisted upon by others equally skilled. After all it is not the hair-splitting methods of the pathologist that most concern the practitioner but the general welfare of his patients. From his standpoint the different forms exist only as curious variations of the disease.

The possibility of the occurrence of the accident should be always before the general practitioner for on him rather than the specialist devolves the making of a diagnosis. In many cases the symptoms are so plain that he who runs may read, and yet again they are masked to such an extent that even Tait was led into implying that it was folly to attempt to diag

nose extra-uterine pregnancy before rupture. The case may present all the symptoms of pregnancy and point to the occurrence of an ectopic conception from the very first, or the woman may be seized on the street or in the performance of her household duties by a sudden rupture and fall as if struck by a rifle ball. Between these two extremes there exists every variety. There may be all the classical symptoms; belief in the occurrence of pregnancy, morning nausea, swelling and tenderness of the breasts, followed by slight pelvic pain with some bleeding and the discharge of shreds of membrane, leading the unwary to imagine that a miscarriage has taken place; or, in contrast to this, there may be the lightening-like stroke of sudden and uncontrolled intra-abdominal hemorrhage which may be the first intimation that pregnancy existed.

Cases of extra-uterine pregnancy rarely come to the abdominal surgeon for diagnosis. That is made by the family physician and the surgeon is called on merely to save the life. That the diagnosis is not always easy the utterances of some of our ablest and most skilfull diagnosticians are witness. Pyosalpinx has been found where an ectopic pregnancy was expected and vice versa. The uterine cavity has been scraped and cauterized in the attempt to check the hemorrhage following a supposed abortion which, after all, was an unsuspected extra-uterine pregnancy, as revealed at the operation performed to save the patient's life by a surgeon who recognized a pelvic mass and knew that sound surgery demanded its removal.

The profession is still divided into two camps on the subject of section and removal of the sac before rupture, supposing the case be diagnosed. The difficulties of diagnosis are so great and the conditions that may be mistaken for extra-uterine pregnancy so many that the safest plan in a suspected case is to operate rather than to trust to the uncertain mercies of electricity. The electricians point with pride to reputed cures by their favorite agent, but they are unable to bring proof to bear that they were really dealing with an ectopic gestation. Injections of lethal substances into the sac have fortunately become ancient history, more to be wondered at than the practices of some old mediæval leech, half astrologer, half physician.

After rupture there is only one treatment—section and the ligature of the bleeding vessel with removal of the sac. On this point there is a full consensus of opinion. A quick operation with thorough irrigation of the abdomen, followed by glass drainage gives the patient the best chance for recovery. It were just as rational to refuse to ligate a spurting artery in the leg or arm as to trust the hemorrhage from a ruptured tubal pregnancy to nature's care.

Continued Administration of Digitalis.

In a recent paper on this subject (*Va. Med. Mo.*) Dr. F. M. Brooks says: I do not think that digitalis is a specially dangerous medicine, and am of the opinion that it may be safely pushed continuously till the pulse rate drops to 45 in the minute. I think digitalis one of the best slow heart tonics, and am much in the habit of giving it in such conditions as typhoid fever, phthisis, the later stages of pneumonia, etc., in conjunction with alcohol in some form. My experience has led me to believe that, as a rule, physicians fail to comprehend that digitalis must be given steadily and in increasing doses, till the object desired is gained or the drug found unsuited to the case. I think it, with one other drug—quinine—the only absolutely safe antipyretic for use in the acute fevers of children.

"So SHE married a man who lived in a distant city? How did she happen to become acquainted with him?"

"She saw his portrait in a medical advertisement in a newspaper and fell in love with it."—*Cape Cod Item.*

TRANSLATIONS.

THE PATHOGENY OF DIABETES.†

Chauveau and Kaufmann (*Gaz. Méd. de Paris*, Feb., 1893) regard the pathogeny of diabetes as one of the most important subjects in progressive general physiology. The glycemic function plays a most important rôle in the nutritive activity. The blood studied in a fasting subject constantly contains glucose. The subhepatic veins contain most of the sugar of the economy, and the venous blood of the general circulation is always less rich in glucose than the arterial blood. This physiological sugar is, therefore, in an incessant state of formation and destruction. It is formed in the liver (Cl. Bernard) and destroyed or transformed in the capillary networks intermediary between the arteries with red blood and the veins with black blood (A. Chauveau). It is this condition of the blood which is expressed by the term *glycemic function.* This is without doubt an improper term because it implies a manifestation of activity, a movement, while it in reality is applied to a sort of static state. The true glycemic function consists in active nutritive changes which prepare, transform and utilize the sugary materials of the blood. This state of the blood is commonly designated by the term *glycemia.* The terms *hyperglycemia* and *hypoglycemia* are also readily used, applied to cases of exaggeration or of diminution of the normal or physiological glycemia. The glycemic function, therefore, represents the *ensemble* of acts which tend to maintain with the permanence of the glucose in the blood, an equilibrium between the dispensing and the production of this substance. It is well known that *glycosuria*, the essential symptoms of diabetes mellitus, is due to *hyperglycemia,* that is to say an abnormal accumulation of sugar in the blood. But what is the immediate cause of this hyperglycemia? Does the blood become too rich in sugar because the tissues cease to appropriate this substance of the nourishing fluid for the needs of the nutritive acts which occur in the heart of the anatomical elements? Does this fluid enrich itself, or the contrary, in sugary material, because the liver turns more of it into the circulatory torrent, or even because other organs become auxiliary to the liver in the sugar-forming function? In other words, is it the consuming of the sugar which is arrested or the production which is increased when this substance accumulates in the blood of the diabetic in sufficient quantity to provoke an elimination by the senal passages? The answer to this remains still in suspense.

The method employed by the authors in their effort to solve this problem rests entirely upon the results of the comparative analyses of the arterial and venous bloods of the general circulation. Three cases may present themselves; either the venous blood becomes, as in the normal state, less rich in glucose than the arterial blood, and then the hyperglycemia should be placed to the account not of a default in the consumption of the glucose, but to an excess in its production, or the two bloods show themselves nearly equally rich in sugar, which necessarily implies a poor using of this substance in the capillary networks and places in this default of consumption the cause of the hyperglycemia; or finally, the venous blood becomes more sugary than the arterial blood which indicates positively that the hyperglycemia is due to a production of glucose on the site in all of the tissues of the economy. To assure exactitude of the comparative results of the analyses of the two bloods the authors took care to observe:

1. That the two bloods should be gathered simultaneously and in the same amounts.

2. That they were treated exactly in the same way.

3. That the operations in general, particularly the dosage of the glucose by the standard fluid should always be done by the same manipulator.

In the physiological state the comparative analyses of the arterial and venous bloods practiced under the conditions

†Translated for THE MEDICAL AND SURGICAL REPORTER, by W. A. N. Dorland, M. D.

above mentioned, never fail to demonstrate that the venous blood is less rich in sugar than the arterial. This same inferiority of the venous to the arterial blood in respect to the quantity of sugar is noticed in all of the deviations of the glycemic function which are provoked by a lesion of the central nervous system. This inferiority likewise shows itself in the hyperglycemia which follows extirpation of the pancreas. The authors will demonstrate this by presenting in a future report the results of the analyses in each particular case.

HERNIA ISCHIATICA.*

The following case is reported by Schwab (*Arch. Générales de Mèd.,* Julie 92.) The patient, female, age 31, sought relief at the hospital for a large swelling which had developed gradually in the right gluteal region. The patient had noticed a small swelling, size of a pigeon's egg, four and a half years ago which, however, gave her no discomfort and disappeared on assuming the recumbent posture.

Since two and a half years there has been a rapid enlargement of the swelling with inability to reduce it. At the present time it reaches to the hollow of the knee and is 25 centimetres long, 23 centimetres wide, and has the circumference of 62 centimetres; at its pedicle it measures 47 centimetres.

It was painless upon pressure and produced no disturbance in the action of the bowel and bladder.

Diagnosis: Fibro-lipoma of the gluteous maximus.

Operation: On cutting through the swelling a hernial sac was found in the middle, about the size of a fist, which contained loops of small intestines. Reposition of the intestines, ligation and separation of the sac, the stump receded into the pelvic cavity through the upper portion of the incisura ischiatica. A close examination of the growth revealed a second pocket with thickened walls containing a yellowish, serous fluid; the finger could be easily passed through this opening into the abdominal cavity; it was distinctly separate, but along side of the first. The examination of the growth, which weighed more than seven pounds, proved that it was chiefly composed of fibrous tissue, in which myxomatous and muscular tissue could be traced; there was little or no fatty tissue found.

The recovery was retarded at first by the discharge of gangrenous shreds from the depth of the wound and, before it was entirely closed, it was noticed that urine passed out in small quantities. At the same time catarrh of the bladder set in and almost the entire secretion of the kidneys passed out through this fistulous opening.

This condition, however, soon improved, the fistula closing until only a few drops of urine passed out per day, and the patient was discharged as cured.

The author has collected 17 cases from literature and found that this form of hernia is more often found in women than in men (2 to 1.) More often on the right than on the left. It was found in four cases to be congenital. The pathological anatomy and their origin seemed both indefinitely known.

The intestinal loop finds its way out above the pyriform muscle, and passes along the course of the superior gluteal artery through the incisura ischiatica major, but in some cases it has been known to pass beneath the pyriform muscle, and even one case was reported by Schillbach, in which it passed through the incisura ischatica minor.

In the hernial sacs, aside from the loops of the intestines, the ovary was found in four cases. The hernia was mostly the size of a fist, and the symptoms were of such an undecided nature that diagnosis became quite difficult.—(*Centralb. für Chir.* No. 9–'93.)

*Translated for The Medical and Surgical Reporter by Marie B. Werner, M. D.

Didn't wake up at all.—*Dr. Chargit:* "Did the baby wake up much in the night?"

Mr. Noopop (grimly): "It didn't wake up at all. It never went to sleep."

ABSTRACTS.

THE COAGULABILITY OF THE BLOOD IN PARTURITION A FACTOR IN OCCURRENCE OF POSTPARTUM HEMORRHAGE.*

T. RIDGWAY BARKER, M. D.

That of all the dangers incident to parturition, post-partum hemorrhage is the most unexpected, sudden and overwhelming, needs scarcely more than mention by the writer. Books, pamphlets and papers innumerable are continually calling our attention to the most radical means of treatment, and yet the death records still find their pages blotted with the names of women who have lost their lives by the failure even of improved methods and measures.

The turbulent stream would seem to have been sounded, and the bars, sunken rocks and shallows accurately located, but for all that shipwreck has occurred. And why?

The ship's course was carefully marked out on the chart; the likelihood of storms was considered, and yet the result was disastrous.

What was it that caused the good ship to go on the rock? Nothing less than the swift, strong, resistless, ungovernable current which we failed to appreciate as we approached the harbor. Had we properly estimated this factor, the results of the voyage would have been far different; and it is to this swift current, metaphorically alluded to, that I wish to call your attention, namely, the blood. In the prevention of the occurrence of post-partum hemorrhage two factors are at work: firstly, tonic uterine contractions and retractions; and, secondly, coagulation of the blood at the orifices of the veins and arteries beneath the decidua serotina.

That a definite relation must exist between these two forces to secure a perfect result is very evident. For if one fail to respond to the normal stimulus, then dangerous hemorrhage will inevitably result.

Fully appreciating the importance of firm coagulation of the blood after delivery as a preventive against hemorrhage, and recognizing the inestimable value of a trusty danger-signal that may be seen afar off, when such a condition does not exist, I have sought for one that might be worthy of credence, and believe I have found it in the blood which escapes from the parturient canal during the second or even earlier stage of labor. Should this fail to coagulate promptly on exposure to the air, then we may take it as a warning that the patient runs no slight risk of post-partum hemorrhage, and every precaution should be taken to guard against a surprise. It is not to be supposed that every female in labor, whose blood does not coagulate with the normal rapidity, is doomed to suffer an attack of post-partum hemorrhage; that would be too sweeping an assertion; but what the writer wishes to declare is, that the danger of post-partum hemorrhage is directly proportionate to the coagulability of the blood and the persistency of uterine muscular contractions.

Further, that the former condition is made manifest during the early stages of labor and may, therefore, be accepted as a danger signal, and precautions taken accordingly. Without firm plugs in the arterial branches and venous sinus we cannot feel satisfied that our patient is free from the risks of post-partum hemorrhage. No matter how great be the coagulative power of the blood, however, it cannot prevent hemorrhage if the ordinary precautions are not taken.

To deliver the fœtus with undue haste, to resort to forcible dilatation of the cervical canal, or to make violent attempts at detachment and expulsion of the placenta, to disregard, in a word, all the fundamental principles underlying the conduct of labor, is to invite hemorrhage in any case. That this easily-acquired knowledge of coagulability of the blood during confinement early in its course can be put to practical advantage needs no confirmation by the writer. It places us on our guard. It warns us to be conservative of the vital forces of the female, and especially so of the blood supply.

*Read before the Obstetrical Society of Philadelphia, February, 1893.

It, moreover, affords us an opportunity to make preparations for the impending danger, and if the obstetrician cannot avert it, at least he can reduce its baneful effects to the minimum.

It is not necessary that all the blood escaping from the birth canal should show this decided tendency to coagulate, for a part of the fluid only may do so, the remainder being so freely diluted with the liquor amnii that such a change is not possible. One clot will indicate its character, and upon this we may place considerable reliance. Of course, though the blood clot firmly, one is not justified in folding his hands when attending a case and saying, "there is no danger from post-partum hemorrhage because you see the blood clots firmly." Not at all! It simply means the female is less likely to suffer in this way than her sister whose blood is so poor and watery that it lacks coagulative power.

The white light may shine out brightly from the switch box, to borrow a phrase from the railroader, notwithstanding the switch is misplaced, if an accident has occurred which renders it inoperative. So with the blood; it may give evidence of containing all its chemical constituents in proper relation and proportion, yet something else may be wrong which prevents its powers being availing. Having seen from the above the close relationship which exists between deteriorated blood and post-partum hemorrhage, the latter in point of fact being the sequence of the former, it remains for us to take measures early in the period of gestation to counteract, by an abundance of fresh air, sunlight and judicious exercise, this degenerative tendency, and so overcome it that our patients, when they are brought to their confinement bed, may be spared the dangers of post-partum hemorrhage.

Nor must the quality and quantity of food taken during this trying period be overlooked, for these matters are no whit less important than those before mentioned. Rich blood insures healthy nerves, which are ever ready to act upon healthy muscles, and these in turn upon the blood vessels.

When we have attained this condition, and associate it with judicious management, post-partum hemorrhage will become a thing of the past.

Consumption Caused by Cows.

"Consumption is the result of drinking cow's milk, and where milk is not used the disease is said not to occur." Rather a sensational statement this when it stands alone and is unqualified. Yet it comes from an authoritive source and is meant to stand alone and unqualified. Dr. Charles A. McQueston, Secretary of the United States Board of Examining Surgeons, and a well-known practicing physician of San Francisco, is the authority.

"I mean exactly what I say; no more, no less. The primary cause of consumption is the drinking of cow's milk. Of course I don't mean that every single case of phthisis is attributed directly to the patient's having imbibed infected cow's milk—though even so strong a statement as that is very nearly true—but I do mean to say that if the American people stopped using cow's milk and butter and cheese made from cow's milk, tubercular consumption would soon disappear.

"Let me put it in another way: In countries where cow's milk is not used tubercular consumption is not known. The scientific world is awakening to this fact, and soon we may expect a more rigid inspection of our daily milk supply. But I must say it is taking us an unconscionably long time to discover this simple truth. And the proof is right at hand and unmistakably plain.

"In China there is no milk consumed and consumption is almost an unknown quantity. Take the steppes of Asiatic Russia. Only goats' and mares' milk is used there. Consequently there is no consumption. Goats and horses are free from this scourge of civilization, and those who use their milk have yet to know the terrors of phthisis. The same condition is, or was until recently, true of the South Sea Islands. No cows, no tubercular disease.

"Take the North American Indians before the white man brought his whisky and his cows among them. They had no word in their language that corresponded to consumption.

"Of course, in our day, doubtless a few cases of phthisis are produced by the person inhaling the dried sputa of a consumptive, and it may be true that some cases are inherited. But the great cause, and the first cause, is the use of cows' milk as a food."—*Med. Brief.*

THE LIBRARY TABLE.

BOOK REVIEWS.

Cheyne-Stokes Respiration. By George Alexander Gibson, M. D., D. Sc., F. R. C. P. E., F. R. S. E., Assistant Physician to the Royal Infirmary, of Edinburgh; Lecturer on the Principles and Practice of Medicine at Minto House; Examiner on Medicine and Clinical Medicine in the University of Glasgow, Edinburgh: Oliver and Boyd, 1892.

In this little monograph, of 130 pages, the author considers the subject under three divisions: Historical, clinical and critical.

In the historical part are given the theories and researches of the various observers from the time of Hippocrates down to the present. The clinical division presents the report of cases, arranged in a definite series, in order to emphasize the difference which they present in the association of phenomena. Tracings are given showing the breathing in various stages and also the conditions of the pulse, respiration and temperature. The conditions underlying the complex of symptoms are considered in the critical chapter and the author sums up as follows: "A careful study of the entire phenomena must lead to the adoption of the view that Cheyne-Stokes breathing is but one of a complex group of associated symptoms. Why there should be such a diversity of phenomena connected with the pulse, eye and mind it is at present impossible to answer. It is only possible at this time to hazard the suggestion that the centres involved in each group of symptoms may be effected singly or collectively. The essential cause of the symptom is without doubt a periodic variation in the functional activity of the automatic centre for respiration. Whether periodic variation depends simply upon the loss of the influence of the higher regulating centres, or whether it is also at the same time the result of diminished vitality, in accordance with some great natural law, it is not at present in our power to decide."

In an appendix the research is brought up to date—the principal part of the work having appeared in articles written by the author for the *Edinburgh Medical Journal.* The work is what one would expect from its author—a scholarly production and an addition to our knowledge of this obsure condition.

The Mastoid Operation. By Samuel Ellsworth Allen, M. D.

The necessity of attacking the mastoid bone for necrotic and carioses condition, resulting from middle ear suppuration, is daily becoming more and more apparent, notwithstanding the fact that its value was recognized as early as the year 1649. Like many other valuable surgical procedures it fell into decline to be again awakened from its lethargy in 1849, though not actively supported until the year 1853, when the well-known periosteal incision of Wilde was published. Since this date current American and European literature has been well sprinkled with successful mastoid surgery. This work of Dr. Allen's is most welcome as its deals in a compact and scholarly manner with the subject from a historical, anatomical, pathological and operative standpoint. Historically it provides us with valuable data. Anatomically, we are furnished landmarks and sections of the temporal bone affording a means of studying the bony structures with comparative readiness. In addition to these sections of the bone the anatomy of the soft parts of the ear is minutely described. Twenty of the one hundred and eleven pages of this book are devoted to a thorough discussion of the pathology of the ear, and after considering carious, necrotic and tuberculous changes we find particular stress placed on the genesis and pathology of cholesteatomatous formations; the author holding the views of Habermann as the most likely explanation, though those of Virchow and other pathologists are also considered. The operative technique as described by Dr Allen is, as he tells us, that advised by a master of aural surgery, Prof. Schwarz. It is a thorough antiseptic method throughout. In mentioning the instruments necessary for the operation the author does not give the trephines or drills any place, considering them entirely uncalled for. His council will hardly meet with universal support, since many operators hold that the operation can be more rapidly performed by first removing with the trephine a button from the outer layer. The first step in the operation is beautifully illustrated by a cut showing a modified Wilde incision; a second showing the field of operation after the soft tissue have been drawn aside.

We are largely indebted to Dr. Allen for the attractive and complete manner in which he has furnished us with this book. While this work is from experience gathered in the European clinics the author cannot be charged with a disregard for American surgeons, since he gives credit to many who may be said to have been among the earliest to report its successes. The book is most valuable and deserves general support and study.

Handbook of the Diagnosis and Treatment of Disease of the Throat, Nose and Naso-Pharynx. By Carl Seiler, M. D., Instructor in Laryngology and Lecturer on Diseases of the Upper Air Passages, in the University of Pennsylvania, etc. Fourth edition, thoroughly revised and greatly enlarged. Illustrated with two lithographic plates, containing ten figures and 107 engravings. 12 mo., 414 pages. Cloth, $2.25. Philadelphia, Lea Brothers & Co., 1893.

This work will be popular with the busy general practitioner both on account of its size and price. It covers all the ground that any general practitioner would be likely to investigate, and does it thoroughly and without circumlocution or ambiguity.

A short chapter is taken up with a history and explanation of the Laryngoscope. As this instrument is the foundation of all throat work such a chapter fills a long felt want. The whole text is well illustrated with excellent cuts which add greatly to its teaching value.

The book is not a mere compilation of dry statements and routine formulæ, but the rationale of each procedure is carefully developed.

It is not burdened with an array of complicated instruments, but simplicity and clearness in detail marks its arrangement. The chapter on Specific Laryngitis is to be commended for both thoroughness and positiveness. For rapid effect he recommends the hypodermatic use of mercury.

Altogether this is a valuable book for the general practitioner, and will be found often available no doubt in the work of the specialist. The publishers have done their work well.

CURRENT LITERATURE REVIEWED.

THE DIETETIC AND HYGIENIC GAZETTE

For April contains three papers. The first, "Hydrotherapy in the Treatment of Nervous and Mental Diseases" by Dr. Frederick Peterson, has already been reviewed in THE MEDICAL AND SURGICAL REPORTER for February 4th, 1893, page 234.

The second article is by Dr. H. Koplik on

The Sterilization of Milk at Low Temperatures

and is taken from the *New York Medical Journal*. The author shows that cow's milk sterilized at temperatures above 100° Celsius, undergoes certain gross and chemical changes which unfit it as an article of food. 85° to 90° Celsius—not above—has, in the writer's hands, proved the most satisfactory and rational temperature to employ for milk which is to be distributed to dispensary patients without control. Such milk is wholesome and unchanged after twenty-four hours, and may keep even in warm and moist weather a week or more without the aid of ice, and, placed in the hands of the most ignorant mothers, will keep for twenty-four hours or more, even if ice is not used. The plan the author adopts in dispensary practice is to give the milk in bottles containing enough for one nursing, a sufficient number of bottlesful being given for twenty-four hours feeding. An important part of the plan is the thorough cleansing and sterilizing of the bottles on their return to the dispensary. The causes of failure in the use of sterilized milk are pointed out and the abstention from milk (even if sterilized) for a short time is pointed out as a most useful adjunct to the treatment of summer complaints where the child's stomach is weak. The paper also includes the rules for household sterilization of milk.

Dr. W. Henry Price presents "A Contribution to the Study of Marasmus," reporting four cases. The paper is continued from a former issue of the journal.

THE ANNALS OF GYNECOLOGY AND PÆDIATRY

For April. [In reviewing the March number of this magazine, we noticed the publication of an article by Dr. Currier in an earlier issue of THE MEDICAL AND SURGICAL REPORTER. The author calls our attention to the fact that, as published in THE REPORTER, the article was an abstract of the original article as it appeared in The Annals, and asks that this note be made. We make it with the addition that THE REPORTER was not aware that the article in question was an abstract, or it would have appeared in the department allotted to abstracts.—Ed.]

Dr. William Warren Potter contributes a paper on

Puerperal Sepsis; its Prevention and Cure.

I. Obstetric engagements once accepted should be fulfilled, no matter how awkardly they fit. Apply the same rule for cleanliness to rich and poor alike. Decline service when this cannot be done. Human life is too precious to jeopardize it by slipshod, half-hearted or indifferent service.

II. The physician should be the model of cleanliness in body and clothing, and should insist upon the observance of similar conditions by all persons in and about the lying-in chamber.

III. The delivery room, whether in hovel or palace, court, alley or avenue, should be simple in its furniture and hangings, and be cleaned with soap, water and whitewash (if possible to use the latter) immediately before occupancy by the puerpera.

IV. The delivery bed should consist of a new tick filled with sweet and clean straw, covered with a blanket, impervious dressing and a folded sheet, with other clean covering to be allowed according to the season. Exceptions to this simple bed should be as few as possible, and in no event should a bed be substituted that has been used by the sick, or that is not beyond even a suspicion of infection.

V. The patient should be specially prepared for delivery by baths and enemata, vaginal douches and clean clothing; and labor should be conducted on the lines of absolute cleanliness, with few digital examinations, and a complete delivery of the secundines.

VI. Lesions of the genital tract should receive careful attention; rents of the perineum should be repaired, and so too, in some instances should tears of the cervix.

VII. Antiseptic solutions containing a germicide should be used for cleaning the hands and instruments of the operator.

Intra-uterine irrigation with sterilized water should be carefully employed after operative midwifery, either manual or instrumental.

VIII. Finally, if sepsis proceed to suppuration and abscess, the abdomen should be opened, pus cavities emptied, irrigation used and drainage established. If the uterus and adnexa become thoroughly infected they should be extirpated.

Dr. Mordecai Price presents the

Report of Cases of Ovariotomy.

CASE I. The patient was supposed to be suffering from a tumor and to be too weak to have anything done for relief. A change of attendants resulted in Dr. Price being called in consultation. She had missed two periods followed by symptoms of miscarriage, and had continued to bleed up to the time of the operation. There was a large tender mass on the left side. The section showed extra-uterine pregnancy ruptured, with the large clot undergoing degeneration. On account of the dense adhesions it was decided to remove only the contents of the sac, wash out and drain. The patient made a slow but perfect recovery.

CASE II. Removal of tubes and ovaries for nodular fibroid disease of the uterus. Recovery.

CASE III. Removal of gonorrhœal pus-tubes. Recovery.

CASE IV. Removal of multilocular ovarian tumor of twelve pounds in weight from a patient 65 years old. Recovery.

CASE V. Removal of double hydrosalpinx. On one side the tumor was as large as the fist, the other half the size. Recovery.

CASE VI. Removal of large pus tube from one side and a diseased and adherent tube on the other. Recovery.

CASE VII. Six weeks before operation the patient had had forcible dilatation of the cervix for sterility. This was followed by a severe attack of inflammation of the left tube, resulting in an abscess which broke into the bowel. At the operation it was impossible to remove all the diseased tube and pus sac on account of the dense adhesions to the bowel and vagina at the site of the fistulous opening. Ten to twelve ounces of pus were discharged through the abdominal opening at the time of the operation. Thorough irrigation and glass drainage. Patient made a good recovery.

CASE VIII. Supra-pubic hysterectomy, with removal of large ovarian growth on the right side, filled with black gelatinous fluid of the consistency of tar, the right tube and ovary much diseased, with an intra-peritoneal cyst in the region of the left kidney, adherent to everything, which was with difficulty removed; no ligature used. In the removal of the uterus it was thought best to ligate the tubes deep down in the pelvis, and apply the nœud at a high level. For six hours after operation there was no perceptible pulse at the wrist. Recovery. The nœud was removed on the ninth day.

Uterine Cancer

is the subject of a paper by Dr. J. M. Baldy. Cancer, he says, has often advanced to an irremediable stage before the historic symptoms of pain, hemorrhage, and bad smelling discharge appear. If, after the menopause has been established, irregular uterine bleeding begins, a strong presumptive evidence of this disease is established, on which we ought to act; if no other cause for it can be found. There is only one treatment for cancer, but it is a question how far it is curative. The treatment of cancer of the interior of the uterus by intra-uterine applications of any kind is simply folly. In his operations he has entirely given up the use of clamps. He makes an opening anteriorly and posteriorly, and ties the broad ligament on both sides with cat-gut, stitches the stumps in the vagina and closes the vaginal vault without drainage. This brings the ligatures into the vagina, where they slough away. It leaves no raw surface; it controls all the vessels, and there is nothing to remove subsequently. It gives none of the theoretical objections of sepsis or hemorrhage following the removal of clamps, although these risks are slight.

Dr. Charles P. Noble reports a case of

Hysterectomy for Soft Myoma of the Uterus.

In the operation he adopted the method of tying off the broad ligaments, amputating the cervix at the level of the vagina and covering the stump with peritoneum, making it extra-peritoneal. He believes that it is wise to sew the peritoneum over the stump in all cases, and that it is good practice to disinfect the cervical canal and to pass gauze through it, in certain cases, to render drainage through the cervical canal more certain. The patient recovered. Dr. Noble also reports a "Case of Ovarian Poly-cyst, removed from a woman suffering from chronic Bright's disease." The patient made a good recovery and he thinks the case offers encouragement to operate for cystoma even in the presence of Bright's disease. In inflammatory disease of the appendages he still believes it unwise to operate; suppression of urine is almost sure to follow. The reason for the better results in tumor cases is plain—removing the tumor removes the pressure from the kidneys and thus tends to assist in restoring their function. Chloroform was used as the anæsthetic because of its supposed advantage over ether in being less irritating to the kidneys.

Dr. Ernest Copeland contributes a paper on

Digital Dilatation of the Pregnant Uterus.

The author finds no successful method of rapid dilatation of the pregnant uterus mentioned in the text books on obstetrics—Barnes' bags being open to the objections that they consume too much time and are generally out of order from deterioration of the rubber, though they most nearly meet the indications. The method he advocates is as follows: After taking all proper antiseptic precautions the patient is anæsthetized and placed in the dorsal position. The index finger of the operators's right hand is inserted in the cervix and when the os is sufficiently dilated to admit two fingers the

index finger of the left hand is also introduced and the uterus drawn down. It is often of undoubted benefit to have pressure made from above by the hands of an assistant. The fingers are now rotated from left to right and from right to left, the finger of each hand completing half a circle, bringing uniform pressure to bear successively on each portion of the cervix; as the os dilates other fingers are introduced until three fingers of each hand are used. He emphasizes the fact that this is not simply a stretching process, but uniform distribution of force successively to each portion of the cervix. When the uterus is sufficiently dilated the case is conducted as an ordinary labor. He has practiced this method of dilatation for several years and has not found a case that could not be readily dilated. His experience is that there is no more danger of lacerating the tissue than in a labor where one must resort to instruments or turning. The method is particularly applicable to cases of eclampsia where delivery must be accomplished quickly. The advantages of the method are:

I. The cervix can be dilated more rapidly than by any other method.

II. The means of dilating are always with one, with no appliances to get out of order.

III. On account of the uniform distribution of force, laceration is scarcely more likely to occur than in a normal dilatation.

The author includes in his paper the reports of a number of cases in which the method was applied with success.

Dr. L. S. McMurtry contributes a paper on

Abdominal Hysterectomy.

There are practically three methods, he says, of treating the pedicle: 1. To fix it in the lower angle of the parietal incision. 2. To provide against hemorrhage by ligature and suturing and drop it as in ovariotomy. 3. To completely excise the cervix. In his own cases, seven in number, he has used the nœud exclusively. All his cases have recovered. The great dangers to keep in mind in abdominal hysterectomy, besides sepsis, are shock and hemorrhage. Injury to the bladder and ureters are ever present dangers during operation. Everything which prolongs anæsthesia and protracts the operation tends to beget shock. The operation with the nœud is the easiest to execute and requires less time; hence shock is reduced to a minimum. When the nœud is properly applied to a reduced pedicle, it is as surgical and elegant as any operation whatever. Scientifically considered, the nœud is nothing less than a wire ligature adjusted under absolute control, and guaranteeing safety against hemorrhage. The pedicle must often be reduced and no one who has not mastered the making of a pedicle by deperitonization and reduction can do justice to the practical application of the nœud in hysterectomy. The method is applicable to all sizes of tumors, and is readily applied in those cases where the tumor rises out of the pelvis and lifts with it the pelvic peritoneum and broad ligaments, and commends itself to confidence by its results.

In the Department of Pædiatry, Dr. H. Augustus Wilson contributes a paper on "The prevention of Idiopathic Rotary Lateral Curvatures of the Spine." All forms of shoulder braces are condemned and proper gymnastic exercising of the whole muscular system advocated. Training in correct carriage, such as that given the cadet at West Point and Annapolis, is also recommended. The article is illustrated with many photographs explanatory of the various points of the paper.

LIPPINCOT'S MAGIZINE

For May, 1893. The complete novel in the May number of Lippincott's is from the facile and well-tried pen of Rosa Nouchette Carey. Its title is "Mrs. Romney." The third in the series of Lippincott's notable stories, "A Pastel," by Cornelia Kane Rathbone, is a touching sketch of wasted loyalty and disappointed hope. It is illustrated throughout. James Fox furnishes a full and glowing account of "New St. Louis," illustrated with cuts of a dozen of the huge buildings which have lately risen in that thriving and progressive city. John Bunting traces the origin and history of "The Society of the Cincinnati," with the violent objections which were raised in its early days against its supposed aristocratic character and dangerous tendency. This article also is illustrated. Mrs. Gertrude Atherton supplies a short but appreciative account of the American sculptress, Kuhne Beveridge, with a cut of her most notable work, "The Sprinter." Professor L. M. Haupt has a brief article on "Colonel Pope and Good Roads." M. Crofton, in "Men of the Day," gives sketches of William Morris, the poet, Archbishop Satolli and Secretary of War, Lamont. The poetry of the number is by Louise Chandler Moulton, Dora Read Goodale, Charlotte Pendleton and Arthur D. F. Randolph.

Deaths Under Anæsthetics.

Gurlt reported to the last Surgical Congress at Berlin, the following statistics of deaths under anæsthetics. They are made up from the observations of 62 operators, who anæsthetized 109, 196 persons, with 39 fatal results, showing one death to 2,800 narcoses. The following were the anæsthetics used:

Chloroform, - -	94,123	narcoses,	36 deaths
Ether, - - - - -	9,431	"	no deaths
Ether and choloform,	2,891	"	1 death
Ether and alcohol,	1,381	"	no deaths
Bromoform with ethyl bromide,	2,151	"	1 death
Pental, - - - - -	210	"	1 death

In 2,913 cases the narcosis lasted over an hour; in an operation for utero-vaginal fistula, 4½ hours; in a case of tetanus, 9 hours. In 25 cases, of which post-mortem examinations were made, cardiac diseases were found. The author urges careful examination of the heart before administering chloroform—*Cond. Ext.*

PERISCOPE.

MEDICINE.

Toxicity of Urine of Patients with Suppurative Affections.

Nanotti and Baciocchi (*Rif. Med.*, 1892) have sought to ascertain whether in all suppurative processes, from the most trival to the most severe, the pyogenic organisms are eliminated by the kidneys. As the result of their labors they affirm:

1. That in every suppurative process, no matter how limited, even if there be absence of any general reaction, the microbes are eliminated by the kidneys without producing any appreciable renal lesion.
2. That pyogenic organisms eliminated in this way are still possessed of considerable virulence.
3. That the urine of such patients has a toxicity distinctly greater than that of normal urine.
4. That such urine is capable of producing wound infection.

That practical deductions to be drawn from these results are as follows: First, in suppurative affections to encourage elimination by the kidney, choosing, however, those diuretics which do not greatly affect the renal circulation. Secondly, the infective nature of the urine is a sufficient indication of the desirability of disposing of this efficiently.—*British Med. Journal.*

Salicylates in Treatment of Pleurisy with Effusion.

Dr. George Dock speaks highly of this method (Huber's) and concludes a paper on the subject (*Ther. Gaz.*):

1. Salicylic acid and its salts are among the most effectual agents in the treatment of pleurisy with effusion.
2. In effective doses the remedy is harmless, and with proper selection of the preparation, and care in administration, causes little or no discomfort to the patient.
3. Salicylates act most promptly in pleurisies with serous effusion of recent origin or of long standing, but they are efficient in simple dry pleurisy, and often act favorably in secondary pleurisy.
4. There is no evidence that they are useful in suppurative cases.
5. The drug acts as a diuretic, but may have an effect on the pathological process, or on the cause of the disease.
6. Salicylates have a more marked action in pleurisy than have the diuretics commonly so called.
7. "The duration of the treatment with salicylic preparations is less than with diuretics, common salt, or roborant medication" (Eugster).
8. The remedy can be used at the earliest period, and favorably affects all symptoms.
9. The drug may be given in the form of the acid, or any of its salts, in doses of a drachm of the former, or one or two drachms of a salt daily. In ordinary cases it is not necessary to give the larger doses, and sixty to ninety grains of sodium salicylate or salol daily may be considered full beginning doses, to be diminished one third or one-half after the effect is manifest.
10. The ordinary precautions must be observed in giving the drugs, and during their administration the total amount of urine should be measured daily.

Physiological Action of Massage upon Human Muscle.

In the *Arch. Italiennes de Biologie*, Maggiore's experiments with Mosso's ergograph lead him to the following conclusions:

1. Massage applied to muscle at rest increases its existence to fatigue, and modifies and delays fatigue proper.
2. In certain cases the good effects of massage are in proportion to the length of time that it is given.
3. Massage prevents in muscles the accumulation of fatigue-products due to work that is too closely consecutive.
4. Percussion and rubbing are inferior to kneading and to mixed massage; that is, to the alternate application of these three methods.
5. In muscles weakened by fasting, massage increases resistance to the effects of work.
6. Upon muscles fatigued or weakened by general causes, as forced marching, watching, brain-work, massage exercises a restorative action.
7. Massage has no good effect whatever upon muscles in which the circulation of the blood is suppressed.

OBSTETRICS.

Vomiting in Pregnancy.

In closing a paper on this subject (*Boston Med. and Surg. Jour.*) Dr. R. A. Kingman offers the following brief suggestions:

Vomiting of pregnancy means suffering and distress which you are bound to relieve.

There is no difference save in degree between the so-called "physiological vomiting" and "pernicious vomiting."

Simple "morning sickness" may pass into "incœrcible vomiting" and prove fatal.

The vomiting of pregnancy results usually from some uterine displacement or other local cause which interferes with the normal expansion and development of the uterus.

This local cause is in a majority of the cases an anteflexion and partial prolapse of the uterus with induration or the tissues in the cervical angle.

To cure the vomiting it is necessary to remove the local cause.

This done, morning sickness need no longer be an essential part of pregnancy.

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ORIGINAL ARTICLES.

A. H. CORDIER, M.D., Kansas City, Mo,
Rapid Operative Procedure as a means of Reducing the Mortality in Abdominal and Pelvic Surgery. . 677

CLINICAL LECTURES.

W. H. LINK, A.M., M.D.
Clinical Observations in New York. 681

COMMUNICATIONS.

CHAS. W. ADAMS, A.M., M.D.
Some Observations on the Therapeutic Treatment of Uterine Fibroids with Report of Cases. . . . 683

AP. MORGAN VANCE, M.D.
The Use and Abuse of Trusses. 687

SOCIETY REPORTS.

Jefferson County (Ky)., Medical Society. . . . 689

Philadelphia Academy of Surgery. 691

EDITORIAL
Medical Schools—Their Management. 699

TRANSLATIONS 702

BACTERIOLOGICAL NOTES. 703

ABSTRACTS 705

CURRENT LITERATURE REVIEWED . . . 710

SELECTED FORMULÆ. 713

PERISCOPE

MEDICINE 715
SURGERY 715
GYNECOLOGY 716
NEWS AND MISCELLANY 716
ARMY AND NAVY 716

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ORIGINAL ARTICLES.

RAPID OPERATIVE PROCEDURE AS A MEANS OF REDUCING THE MORTALITY IN ABDOMINAL AND PELVIC SURGERY.*

A. H. CORDIER, M. D.,† Kansas City, Mo.

For some time I have turned my attention and devoted my time and study to intra-abdominal and pelvic surgical diseases; a sequence of this special work has been to accept the truths taught by others of experience, to follow the dictates of my own convictions and to endeavor to carry out the good, to find the flaws in the defective and avoid the same, and to improve the technique where it is possible.

The surgery of the pelvic and abdominal organs presents many features characteristic to this locality. The structures in these great cavities are peculiarly sensitive to all surgical manipulations and outside influences, and many of the organs being essential to life it behooves the surgeon to be exact in his deductions, accurate in mechanical skill, quick and decisive in its execution. The dangers here are many, and extremely rapid and fatal are their destructive processes when once initiated.

The carelessness, want of clean-cut ideas and absence of a conscientiousness of the great responsibility hovering over the surgeon doing this great work is only too often responsible for much suffering and loss of many lives, that under more favorable circumstances or even with the same surroundings, in the hands of some one who recognizes the cardinal principles underlying this work and carries them out in detail, would recover and have a long, useful and comfortable existence.

I propose in this short article to deal with the important question of the time occupied in doing this class of surgery, endeavoring to show the necessity for rapid work, how it is done and why it is so essential to success. In looking over the literature to which I have access, I have been unable to find a single article written upon this important topic; I am aware of the fact that in all text-books on surgery an occasional injunction is offered to the surgeon to do his work quickly, but the various and special reasons why the time of performing an abdominal operation should be reduced to a minimum has not been given. Before anæsthetics rapid work was advocated, but with the advent of chloroform and the acquisition of the Esmarch bandage as aids to the surgeon the important question was, in part, lost sight of and deliberate "chronic surgery" carried out. Most surgeons present, no doubt, with rare exceptions, on hearing my article up to this point will say: "I always do my work as rapidly as I can." But just wait a moment and see if you do. Examine the preparation of the patient and the surroundings, instruments, the position and allotted duty of your assistants, nurses, anæsthetizer and visitors or those

*Read before the Western Association of Obstetricians and Gynecologists, at Kansas City, Mo., Dec. 27th, 1892.

†Member of American Medical Association of Obstetricians and Gynecologists; Corresponding Member of Obstetrical Society of Philadelphia, etc., etc.

witnessing the operation, follow your manœuvers all through the operation and see if at one or more points you cannot reduce the time of doing your work. I am sure no one will disagree with me, when I say, that an operation cannot be too quickly performed, if skillfully executed, and that an operation can be done just as well, yes better, if done quickly, than if much valuable time is needlessly squandered in dancing about aimlessly. Good surgery does not countenance reckless and undecisive haste, but good surgery does demand clean cut views in quickly recognizing unlooked for complications, rapid and good execution in dealing with the same.

The preparation of the patient for an abdominal operation is an important time-saving procedure, the details of which it will be necessary to vary to meet the indications in individual cases.

The contents of the bowels should be kept soluble for a few days preceeding the day set for the operation, and a saline cathartic administered the day before and an enema given to empty the colon of fæces and gas. This will be found to reduce the time of performing the operation; the intestines being empty will retract, if not adherent, toward the diaphragm out of your way as soon as the incision opens the peritoneum. This preliminary emptying of the intestines reduces the dangers incident to an accidental or unavoidable injury to a gut and minimizes the time in its reparation, since it is much easier and can be done better and quicker with this canal empty.

It is better to have your patient's bowels emptied before being placed on the operating table, for it takes up valuable time and prolongs the anæsthesia, to remove soiled blankets, etc., etc., make the additional or new preparations, made necessary by the large involuntary intestinal movements after your patient is anæsthetized. Have the patient empty the bladder; if it is necessary that a fluid be in this viscus, inject a mild antiseptic liquid, it will require less care and time in preventing its escape or removing this liquid should any of the liquid escape into the peritoneal cavity. The preparatory bath should not be neglected. The final washing is to be done by the second assistant after the patient is placed on the operating table, and the field of operation prepared that the surgeon may have aseptic surroundings to begin his work in; by the assistant doing this part of the work it saves the time the surgeon would occupy in "scrubbing up," should he do the final cleansing of the field of operation. Every moment saved this way reduces the time of anæsthesia sixty seconds.

Preparation of instruments is an important part, the technique of which should be scrupously carried out in its fullest detail. Have within quick and easy access all instruments necessary to performing operation within the peritoneum, to meet any complication liable to be found in this locality. Have in your trays only those you think you will need, if in doubt as to what you may need, place the "doubtful" in a separate tray. Educate yourself to the use of a few instruments and it will be a surprise to others to see with what dexterity you use them and to what a wide range you skillfully apply them. A large tray filled with a mixture of instruments foreign to the field of operation, suggests to the mind of the student of surgical simplicity, and at same time exactness, a want of discrimination and judgement on the part of the surgeon. Three pairs of scissors, three or four scalpels, etc. (in duplicate) are too many to do exact work with at same time on one patient. Have your needles threaded and placed so that they will not be tangled when you are ready to use them. I have seen much time occupied by the surgeon and assistants in threading and rethreading one or two needles while the same were being used over and over again in closing an abdominal or intestinal wound.

Have as few assistants as it is possible to get along with and place them where they can be of the most service to you and as little injury to the patient as possible. Your first assistant should be an operator of ability *and not* a first course student or even a nurse with less experience.

The steps of the operation should be thoroughly understood by the assistant that your movements may be anticipated by his endeavors to assist you. The wrapping of the patient's limbs in a flannel blanket should be done by the nurse as soon as the anæsthetic is administered or begun.

The anæsthetizer is indeed a very important personage in an abdominal operation and too much stress cannot be placed

upon the responsibility his position places upon him. He is expected to do his work quickly yet safely, taking due precaution to ward off any of the accidents that occasionally attends the use of these indispensible agents. He must keep his patient evenly under the influence of the drug, using only the necessary amount to do this. Vomiting, swallowing false teeth, cleft palate plates, gum, etc., etc., interrupt the surgeon in his work and takes time to do that which should have been avoided. The use of hypodermics of strychnia, and other restoratives must be resorted to in some instances and should be carried out by the physician giving the ether or chloroform. In patients with any pulmonary disease, we find bad subjects for anæsthetics and the time must be reduced to as short a period as possible. The time will come when the surgeon, who occupies three hours doing an operation and his patient dies, (they will often die from three hours of anæsthesia alone) that surgeon will be called upon by an officer of the law to defend himself against the charges of manslaughter. I trust this may never occur.

Any operation of long duration within the peritoneal cavity with consequent exposure and handling of the viscera is attended with a condition of profound and dangerous shock. This added to the depression of the vital functions from the anæsthetic is a danger to be avoided or reduced to the least risk by doing the work quickly.

In extra-uterine pregnancy with rupture and large intra-peritoneal hemorrhage the patient is in a condition of profound shock and acute anæmia, either of which must not be intensified by any prolonged surgical procedure, yet a resort to surgery offers in most cases the only hopes of saving the patient. As soon as the abdomen is opened and the pent up blood finds an exit, the hemorrhage at the site of rupture starts up anew with alarming rapidity. Your work here must be quick and decisive or the woman will die from a hemorrhage, probably started up afresh by your slow surgery.

Case I. *Extra-Uterine Pregnancy.* This lady eleven weeks before I saw her, had her last menstrual period. She was nauseated for a few weeks, no escape of decidual membranes (?). At the tenth week had a severe pain in right iliac region, accompanied by a "giving way feeling," with considerable weakness lasting a few hours only; no physician was called. A week later the pain in the same locality returned with increased intensity and of longer duration accompanied by alarming symptoms of profound shock and acute anæmia. A physician was quickly called who wired me to "come at once prepared to operate on a case of extra-uterine pregnancy." I saw the patient eight or ten hours after the rupture took place and the hemorrhage began. She was indeed in an alarming and dangerous condition; she had bled until her pulse was almost imperceptable and her lips were like those of an unpainted wax figure. Her whole aspect was one pointing to an early death if not quickly brought out of her precarious condition. While I was hurriedly getting my instruments in readiness, the water was being boiled and hypodermics of strychnia were given. As soon as all arrangements were perfected the ether was administered, only a small amount being necessary. The operation revealed a ruptured tubal pregnancy at about the twelfth week. Her abdomen was full of blood. The "specimen" was quickly found, a good stout ligature thrown around it and the hemorrhage immediately ceased. Hot water irrigation improved her condition, but even this was carried out quickly; much of the irrigation fluid was allowed to remain to be absorbed by the thirsty blood vessels and absorbents, the remainder to be removed through the drainage tube. Time of operation twenty-two minutes. A longer operation would have cost the patient her life.

In operating on patients whose heart and kidneys are not in a healthy condition, we have an indication for short anæsthesia.

Case II. *Double Ovariotomy; Recovery.* This lady, aged 38, has not walked a block for over a year; valvular heart lesions; pulse 120 to 130, intermittent and very weak. Took the anæsthetic very badly. Cystoma of left ovary size of goose egg, with both Fallopian tubes containing pus. *Every thing in readiness before anæsthetia was begun.* Adhesions firm on left side. Time of entire operation including tying of sutures, thirteen minutes. To have been slow in finishing this operation, with the necessary prolongation of

the anæsthetic would have been at the expense of entailing much danger to my patient's safety. The operation was performed just as well as though I had occupied a half hour longer in making my preparations after the patient was on the table, or had danced about in the pelvis aimlessly twenty or thirty minutes, or had used only one needle and stopped to rethread this one after each suture was introduced.

In patients with high temperatures where the eliminative functions of the skin and kidneys are in abeyance, any long anæsthesia and surgical operation is attended with much hazzard.

In performing a Cæsarean or Porro operation we take an additional human being into our hands, the life which our endeavors should be so directed as to save. Any illy directed or tardy manipulations here may be at the expense of both mother and child, and thereby bring approbrium to this God-sent life saving precedure. To anticipate complications and at same time expediate your work, do that part of the operation attended with little danger quickly, do not occupy twenty minutes (as I have seen) in making an abdominal incision that should be made in as many seconds. Make a small incision but not so small that you are retarded in your work by narrowness of the abdominal opening. Give yourself room.

In intestinal work the judgment of the surgeon will often be called upon to settle the question as to whether he shall do an ideal operation or content himself by a temporary procedure until his patient is in a better physical state to undergo a longer and more radical operation. The answer to the question, "Will the patient stand the longer or more radical operation?" should in the judgment of the surgeon map out his course in the case. In some forms of intestinal obstruction a resort to a quick enterotomy will be a safer step than a prolonged search for the source, and endeavor to remove the cause of the obstruction.

In appendicitis with an inflammatory diaphragm separating the abscess cavity containing the diseased appendix, in a patient suffering from pronounced systemic infection, it is better surgery to simply cut down upon the abscess quickly, let out the pus, irrigate and drain, than to delay the time of operation, prolong the anæsthesia, and subject the patient to the risk of shock, a diffused septic peritonitis and death. This is not ideal surgery but the patient will get well often with this short and quick method of treating these cases.

The close proximity of fetid pus to the peritoneum in suppurative appendicitis produces very early unusual depression.

This is noticed by the shock accompanying or following the anæsthesia and even a simple incision, here "chronic surgery" would kill the patient.

Case III. *Appendicitis, with Perforation, Abscess, Operation, Recovery.* This patient was 19 years old. Gave a history of an attack of appendicitis occurring a year ago—I saw the case in the second week of the present attack—found him in following condition: Pulse 55; temperature 96½° F.; features pinched; extremities cold, great beads of cold perspiration standing on the forehead; hiccough and vomiting; bowels constipated; a well-marked mass the size of the fist with marked tenderness existed in region of appendix. His condition in fact was of the most alarming character, the outlook for improvement by an operation was certainly most discouraging; without an operation death was sure to quickly close the scene. All preparations being in readiness the anæsthetic was administered and the operation quickly performed. The entire time of *anaesthesia* being only eighteen minutes. I cut down upon the lower border of the mass, opened it up, found a perforation of the appendix at its junction with the cæcum. The appendix was bound down by the mass of the inflammatory breastwork. The appendix was not removed. A cherry stone was found lying loose in the abscess cavity. A rubber and iodoform gauze drain were introduced and much of the wound in the parietes left open. While this was not ideal surgery, my patient recovered from the *operation* and probably the mass will be absorbed; the appendix atrophy. If this favorable termination does not take place and he is threatened with a recurrence of his trouble, he can have another operation for the removal of the appendix when his condition is such as to stand this more prolonged procedure.

There are many more important and good reasons why we should be quick in our abdominal work, but I trust I have

mentioned enough to impress anew on the minds of those present the necessity for rapid work and that this short paper may be the means of eliciting a discussion along this line, that will bring out new features, indications or reasons why the time of performing an abdominal operation should be reduced to the minimum.

CLINICAL LECTURES.

CLINICAL OBSERVATIONS IN NEW YORK.

W. H. LINK, A. M., M. D.

On Tuesday afternoon Dr. Thomas Addis Emmet operated ar the Women's Hospital. He did his perineal operation on one patient and amputated the hypertrophied and elongated cervix on another.

Both these operations were done in an ideal manner and the explanation of each step, the reason upon which it was founded and from which it was developed, were elaborated and made clear by impromptu drawings on the black-board. Dr. Emmet laid great stress on the disastrous effects of cicatrices in erectile tissue. All scar tissue he removes and mucous membrane is sewed to mucous membrane, thus restoring parts as nearly as possible to their normal condition. He believes that many women are brought up in a mad-house from the neglect of lesions that any one might readily repair who would give the principles of good plastic surgery a little attention. But now every one who graduated wanted to take out the uterus or do some other work inside the belly. The result was that such things as rectocele, or cystocele, or lacerated cervix, or complete sphincter-tears, with their attending miseries, were completely overlooked or entirely ignored. Another result of the great abdominal craze was, that plastic work was so absolutely pushed aside that good plastic surgeons were becoming scarce. The doctrines that he has been setting forth for thirty years, the operations that he has been perfecting during the same time were replaced by everybody's modification, while men were daily found claiming to do a *modified* Emmet's operation who did not even *understand* the real operation when they saw it done by its author himself. He claims that there are very few men in New York that either understand or do his operation for restoration of the pelvic floor. From some attempts we saw made to do a "*modified*" Emmet we are satisfied that the old man is correct. He claimed that, of men outside of New York who were exemplifying his works and its underlying principles, Dr. Joseph Price, of Philadelphia, and Dr. Howard A. Kelley, of Baltimore, did it the best.

One feels, while listening to Emmet talk, that he is in the presence of a medical and surgical sage. In his case speech is golden and the words and precepts that have grown out of almost a third of a century of toil and devotion to his chosen specialty, fall from his lips in an endless stream. He is as fresh in thought, as rich in language and as fertile in illustration as though in the prime of life; his physical vigor is surprising to those who have known of him so long, while his heart is as young and his courtesy as chivalaric as in days long ago in old Virginia. He is a grand old man and it will be an admitted fact some day that Emmet, Sims and McDowel are America's three great masters to whom the medical world can point with a just pride long after most others are forgotten.

Another of New York's brilliant and able men is Dr. Wm. M. Polk. The two things that just now attract the attention of the vistor to him are his conservative work on the ovaries and his treatment of endometritis and some forms of tubal disease by curettement, irrigation and iodoform gauze-packing of the uterus.

He does not believe in removing an ovary unless it is so hopelessly diseased that none of it can be left with safety. We saw him remove a dermoid ovary from the left side of a patient while on the other side he split the remaining ovary al-

most to its base, punctured and emptied several collections of fluid both from the internal and external surface, then sewed up the incision in the body of the ovary with a continuous Lambert suture of catgut and dropped it back into the pelvis. He did this for two reasons, he said: the woman desired to become a mother; and the ovary predominated the individual and is as essential to the preservation of those finer and more delicate shades of character which serve to differentiate woman from the opposite sex, as the testicles are to preserve the masculine character of the man. He claims that most disease of the appendages has its origin in an endometritis. That the endometritis often exists with healthy tubes and ovaries above. That a careful curettage and gauze pack promptly cures the endometritis. That when the disease of the tubes is comparatively recent and the tubal opening at the uterine end is patulous, a curettage of the uterine canal with gauze packing drains the tube and shutting of the original nidus and origin of the disease, most frequently cures the pyosalpinx. That, if it fails to cure, the endometritis is cured and abdominal section may be still resorted to for the cure of the pelvic trouble. But in old cases of suppurative pelvic disease he does not recommend the gauze packing unless preceeded by a section and it is then done only for the cure of the uterine disease and to hasten the convalescence. He drains some pus cases through the vagina by incising the vaginal vault, but this he recommends only as a temporizing measure in those cases of long standing so reduced by sepsis that a section would prove fatal. After draining through the vagina and giving such relief that their strength is partially restored and their condition improved, he makes a section and removes the diseased structures. He is a very cool, deliberate and graceful operator. His technique is perfect, his work thorough and radical except where modified by his theories.

He is the soul of courtesy, and he impresses one as a masterful man, who does not have to cross the ocean to have any questions settled for him. He talks, looks, acts and works like an investigator. He does not appear as if he feared to assume responsibility, or to settle a question for himself by the light of his own experience. He is the son of Bishop and General Leonidas Polk, and he undoubtedly has inherited more of the general than the bishop in his father's character; for he has the quick decisiveness of the military man, and his personal bearing and precision of movement all betray the military element, which is his both by inheritance and early training.

No one looking for good abdominal surgery ought to leave New York without seeing Polk.

Quinine Pill-Mass—A Catch Prescription.

APOTHEKER, St. Louis.—Here is a prescription handed me to be filled, by a young M. D. just back from a few months' stay in the old country. How would you fill it?

℞ Quinine sulphatis.....grs. xv.
Acidi sulphur. dil.....q. s.
Mix and divide into six pills.

Don't you think the young doctor had better go back to Germany again for another semester or two?

The prescription is all right, as you will find if you mix the ingredients in a hot porcelain capsule. Add about five minims of the acid, and in a short time you will have a beautiful mass. This very question was some years ago the occasion of the appointment of a pharmaceutical commission in either Austria or Germany, we forget which. A certain apothecary who had accidentally discovered the reaction, had a physician friend to write the prescription and send it to his rivals around town, all of whom declared that the pills could not be put up without the use of other ingredients. Apothecary No. 1 thereupon put up the prescription, and was roundly denounced by the other apothecaries as a fraud. The matter got into the local journals and came to the attention of the authorities, who thereupon appointed a commission of three experts to investigate. The commission differed; one of these declared it was impossible to make the pills without the addition of other ingredients. Another thought it possible, but very difficult, while the third experimented a little and solved the matter. It is highly probable that your young doctor had read of the matter (as considerable litigation grew out of it) and gave you the prescription as a puzzle.—*Nat. Drug.*

COMMUNICATIONS.

SOME OBSERVATIONS ON THE THERAPEUTIC TREATMENT OF UTERINE FIBROIDS WITH REPORT OF CASES.*

CHAS. W. ADAMS, A. M., M. D.†

In presenting my subject: "Some observations on the Therapeutic Treatment of Uterine Fibroids with a report of Cases," I shall beg your indulgence and assume on your part a knowledge of many facts, which I have not the time nor opporturnity even to touch upon. The subject is so broad, that it would be useless to take it up in its entirety, within the limits of a single article, and hence I may say that my paper is simply the record of an experiment carried out in a certain direction, and as such I give you the results of my experience.

The cases which I have observed are essentially clinical in their nature, taken from my Women's Clinic during the past two years. From the entire number seen, I shall select for report only those, which, from the length of time they were under observation, can give some positive data, by means of which we may come to a definite conclusion.

Before entering upon their consideration it may be well to make a few preliminary observations, in order that there may be a proper understanding of the cases to be reported.

I will start with this as an axiom, that so long as fibroid tumors of the uterus exist, women should be given the benefit of every method of treatment and operation combined with judicious selection. If this be admitted, it follows that true conservatism demands that every method of cure or treatment must be recognized and understood and no one method used or depended on to the exclusion of every other. I may be pardoned in making this statement, since you as well as I know that it is the tendency for the physician to select one method, and decry the value or benefit of every other, save that which he may follow.

While therefore in my paper I shall report the benefits of but one method of treatment, I do not wish to be understood as using that alone. In fact, according to indications, I should use any one of all methods which the experience of the profession has shown to be of use in the treatment of uterine fibroids.

I have purposely confined my observation to my public clinic, because the cases are matters of record, of access to every one and have been under the eye of not only myself but that of other observers. Many of the cases were under the observations of Physicians during the "Practitioners Course" last spring and were weekly seen and examined, and the effect and course of treatment observed and studied.

Briefly then, I am speaking of fibrous tumors of the uterus or more correctly myo-fibromata—pathological growths—composed of connective and muscular tissue, the one or the other tissue predominating in different tumors. The prominent symptoms for which the patient may present herself for treatment and for which relief is sought by medicine or operation, are menorrhagia, metrorrhagia, pain through the pelvis, profuse leucorrhœa, watery discharge, pressure symptoms, etc. In considering therefore the means of relief or cure of any given case of myo-fibroma which may come under observation, we should bear in mind not only the conditions present, the symptoms for which relief is sought, but the prognosis, course, duration and termination as well. If the case were one of ovarian tumor, which would sooner or later endanger the life of the patient, no one would deny that the end sought should be operation and removal of the growth as soon as it was recognized. But in the case of a myo-fibroma, I think there is every reason to act with more caution. As long as there are no urgent symptoms or the tumor did not interfere with the vital condition or nutrition of the patient, there would be every reason to act with

*Read before the Western Association of Obstetricians and Gynecologists.

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the utmost conservatism. This seems to be the consensus of opinion of the majority of thinkers and workers in our field, and whatever may be the opinion of individuals, it should be entitled to consideration.

I here call your attention to these facts also, which I have taken into consideration in making these statements. I mean the disputed points of benign growths taking on malignancy, also the tendency to cessation of growth after the menopause has occurred as well as other reasons which might argue for the operation of removal of such growths in every case. The advocates of the different methods of the management of a myo-fibroma, have so thoroughly laid their methods and results before the profession that I need not mention them. At present those who favor operation are the most aggressive and seem to have the ear of the profession. Yet while the results of operation have been so safe and sure in the hands of a few, I cannot bring myself to believe that it is the only and final resort. I cannot but believe that there will and must always be a necessity for a proper and judicious selection of some one of all methods used, governed always by the indications of a given case.

It was with these views in mind, that I have carried out a series of therapeutic experiments on cases of myo-fibromata during the past two years, the result of which I shall give in the following reports. I regret only that they do not embrace a larger number and extend over a wider range of cases.

The number of patients seen was sixteen—fifteen colored and one white. The oldest was aged 45—the youngest 29—the average was 37 years. In the sixteen seen, three had no children but had had from one to three miscarriages. Two had children but no miscarriages. Nine had neither children nor miscarriages. In arriving at a conclusion as to the cause of uterine fibroids in my cases, I would say that race, age and nuliparity play a large part in their production. I may also state in this connection that only one of the sixteen was of the class of myo-fibiocystic tumors.

The treatment carried out in every case was the same, viz.:

℞ Fl. Ext. Ergotæ
Fl. Ext. Salix Nig. ..... aa 5ss.
M
Sig. To be taken three times daily.

The reason for the selection of this combination of drugs was mainly theoretical, but practical experience has certainly demonstrated its usefulness in certain cases as a scrutiny of the cases to be reported will show. The ergot is useful from its contractile effect upon the muscular tissue of the uterus as well as on the myo-fibroma within it or connected therewith. The action of this drug in this connection needs no further mention. The salix niger as a sexual sedative, a repressor of passive hemorrhage and chronic mucous discharges, a diuretic as well as a mild tonic has acted well in every case in which it was indicated. In its combination with the ergot the mixture has been borne for months continuously in every case without any unpleasant effects.

With these explanatory remarks, I may now report the cases which came under observation and which were treated according to the above formula. I have selected only those who, from the length of time they were under observation and on the same treatment, will furnish undoubted data from which to come to a conclusion. I regret that my cases are not more complete as regards history and course. You will however bear in mind that I was dealing with an ignorant class in many of whom it was difficult to ascertain even their correct age. I did the best possible under the circumstances.

Case I. Mrs. C——, colored; married; age 43; never pregnant; came under observation January 12, 1891. Nothing irregular with menstruation; no discharge from the vagina.

Symptoms complained of were initability of the bladder and rectum, pain and dragging sensation in the abdomen and pelvis, uterine tenesmus. General health fairly good. Examination shows large, smooth, round and solid growth in abdominal cavity reaching above the umbilicus, but little movable, due perhaps, to its size. The tumor was made out as springing from the posterior side of the fundus of the uterus, which was crowded down under and against the arch of the pubis. Its size and depth could not be well made out.

Diagnosis—Myo-fibroma.—Patient was placed on:

℞ Fl. ext. Ergotae } .....aa3ss.
Fl. ext. Salix Nig. }

to be taken three times daily. Ordered

to report for observation once a week. The patient was kept on this treatment steadily up to Dec. 3, 1891. During this course of treatment I find at periods of three and four weeks interval the following notes in my clinical record book: Tumor smaller and freely movable. Tumor still smaller; freely movable and all signs of pressure and pain in abdomen gone.

On Dec. 3, 1891, when the laparotomy was performed for its removal, the growth was about the size of a large orange, freely movable without adhesions, and could clearly be made as springing by a thick, fleshy pedicle from fundus of uterus.

Case II. Mrs. K——, colored; married; age 35; no children; came under observation June 26, 1891.

Symptoms.—Menstruation regular but painful; excessive flow until three months ago; complains of lancinating pains in abdomen and pelvis. Vesical and rectal irritation. Is almost bedridden, being brought to clinic in a hack.

Examination.—The growths, which were noticed some years ago, are now nodular and multiple, completely fill the abdomen extending up to ensiform cartilage.

No clear diagnosis could be made out on account of the size of the tumor. The only fact which seemed certain was that we had to deal with an enormous myo-fibroma of the uterus.

The patient was put on same prescription as case first and ordered to report in one week. Treatment was carried out as directed, and on July 20, she was able to come to clinic on cable car and reported that she was out of bed and the previous day had done a day's washing. The patient kept on the same treatment, improving in general health with a steady and continuous discrease in the size of the tumors, until October 8th, when she ceased to return to report, no doubt on account of her belief of the uselessness of further treatment, deeming herself well.

At present patient is in bed and, as report says, unable to leave it on account of a stroke of paralysis which occurred in March of present year, 1892. I have no doubt that the present condition of the patient is due to her ceasing to continue the treatment and the consequent growth of the myo-fibroma.

Case III. Mrs. Mary F——, colored; married; no children; came under observation July 13, 1891. Two miscarriages at third month. Menses regular but painful; at times being so severe as to confine the patient to her bed. General health poor. Patient's occupation has been that of a barber for the past thirteen years. First noticed a swelling in the abdomen six years ago. At this time pains were griping in character, coming on daily about 3 o'clock; this condition lasting two months at a time. During this time menstruation was very profuse, of six or seven days duration. Had leucorrhœa and a profuse discharge, watery in character.

Examination.—Uterus pushed forward to pubis; hard tumor irregular in outline lying behind and to right; dense and firm to the feel, freely movable with uterus, springing apparently from the posterior wall of the fundus and extending to the umbilicus.

Diagnosis—Myo-fibroma. Treatment same as first case. The treatment has been continued to Dec. 19, 1892, when the patient was examined and found to have a tumor in the abdomen about the size of the closed fist springing from the posterior wall of the uterus; movable, giving no pain or causing any disturbance by its presence. She is still on the same treatment and able to perform her daily duty at the barber's chair without any pain or inconvenience.

Case IV. Mrs. Tenny M——, colored; age 44; married; has had three children, but no miscarriages; came under observation November 16, 1891. General health good, has been doing washing and ironing for the past eight years. Four years ago, while hanging paper in a room, she experienced a strange feeling accompanied with pain in the right side. This has continued at irregular periods up to time seen. Since this occurred menses have become painful and profuse. Leucorrhœa and profuse watery discharge.

Diagnosis—Myo-fibroma.—Examination showed the uterus retroflexed with a fibroid on right side, twisting and distorting the uterus on its axis. Treatment same as first.

Result: While in this case there has not been a marked diminution in the size of the growth, yet there has been no increase, and the patient has been able to

attend to the duties of life without discomfort. She is at present still on the same treatment and under weekly observations and examination. Menstruation regular, lasting four and five days. Since coming under treatment she has periods of despondency, a fact which was noticed in several others of the cases under observation. Dr. D. W. Prentiss, of Washington, first called attention to this peculiar effect of ergot on certain cases in an article written for the *Amer. Journal of Obstetrics*, December, 1889.

Case V. Mrs. Johanna C——, colored; age 38; married; never pregnant; first seen February 1, 1892. Menses regular, scanty; little pain. General health good up to a year ago. Has done washing for the past thirteen years. About two years ago abdomen began to swell and the urine was retained, making the use of the catheter necessary. Pain has been present from the beginning of the trouble; no leucorrhœa.

Examination shows a hard, round, smooth, dense and firm body occupying posterior cul-de-sac. Cervix pushed high up under pubis with uterus anterior.

Diagnosis— Myo-fibroma.— Treatment same as first. Since treatment menses have been regular, lasting three to four days. Says she does not suffer as much pain as before; no trouble with the urine. The growth has diminished sensibly and the general and local conditions of the patient are such as to warrant a continuance of the treatment.

Case VI. Mrs. Mary A. J——, colored; age 39; married; never pregnant, came under observation June 27, 1892. Menses regular with some pain, profuse and last eight to twelve days. General health fairly good. For the past nine years has kept a store which required her to be on her feet a great deal of the time. About three years ago sold her store on account of ill health, since which time she has been doing her own housework alone. About six years ago excessive menstrual flow began, but patient did not know the nature of her trouble until examined at the clinic.

Has had leucorrhœa and profuse watery discharges; complains of pain and dragging sensation in abdomen, also frequent and painful micturition.

Examination.—The tumor was found to spring from right side of fundus of the uterus extending as high as umbilicus.

Diagnosis — Myo-fibroma.— Treatment same.

Since treatment there was a marked decrease in size of tumor until it was one-half the original size, since which there has been no change. Menses regular, not great in quantity. Patient, on December 19, expresses herself as feeling as well as she has ever been in the past. Complains of periods of despondency.

I will here quote from a letter written to me by my friend, Dr. M. Coryell, of Fort Scott, Kansas. The report will speak for itself:

"On June 5th, 1892, was called to see Miss Z. C——, whom I found suffering from a uterine fibroid. Thinking this to be a good case to try your treatment of salix niger and ergot, I immediately put her on half drachm doses of each to be taken three times daily. This treatment was kept up until the fifteenth day of November when I found her so much better that I stopped their use for a time. She measured around the abdomen, on level of umbilicus, 56 inches; when treatment was begun on June 5th, also the depth of the uterus as measured with the sound was $6\frac{3}{4}$ inches.

When seen and examined on November 15th, she measured around the abdomen, at the level of the umbilicus, $42\frac{1}{2}$ inches, while the depth of the uterine canal had decreased to three inches. She has not had one period of flooding since she began the treatment; while, according to her previous history, she has had from two to three periods of flooding per month for five or six months previous to being put on the ergot and salix niger. I may say, from observation of this case, that the combination of drugs, as recommended by you, will do all that is claimed for them in certain cases."

These cases as reported are the histories of patients with their treatment upon which I have based my observations of the therapeutic treatment of uterine fibroids. They are not manufactured or colored to suit a belief or a theory. They are real, taken from a tri-weekly clinical record and founded upon observation (and I may say an almost daily observation) extending through a period of many months. The only error may lie in the fact that they do not cover a sufficient number of cases and do not extend over a

long enough period of time. However this may be I am of this opinion and shall endeavor to present it to you in the following propositions, which you may take as the result of my observations:

1. That whenever a woman has a myo-fibroma of the uterus she can be benefited either by operation or treatment.

2. That whenever a woman has a myo-fibro-cystic tumor of the uterus there is only one method of cure and that must be operative.

3. That the elective method of palliation or cure in any given case of myo-fibroma must be governed by the condition of the patient and the condition and relations of the tumor present.

4. That the elective methods of treatment of myo-fibromata are palliative, medicinally curative, electricity, operative.

5. That certain cases of myo-fibromata can be and are benefited and rendered entirely inert by the use of properly selected therapeutic agents.

6. That the class of myo-fibromata which are benefited by the use of therapeutic agents are those in which the muscular tissue largely predominate.

7. That the class of myo-fibromata, in which the muscular tissue largely predominates, are reduced in size and rendered harmless by the use of salix niger and ergot. That this does not, however, cover every tumor of this class.

8. Finally, in certain cases, the use of therapeutic agents, if not curative, makes an operative interference safe and of more easy performance; locally by lessening engorgements and loosening adhesions by its contractile effects, and constitutionally by relieving symptoms and thus allowing the attainment of a better general condition.

THE USE AND ABUSE OF TRUSSES.*

AP MORGAN VANCE, M. D.

As far back as history takes us the treatment of rupture has been a problem with which the surgical mind has wrestled; and even up to the present day, the treatment of this ailment, from which such a large proportion of the human family suffer, one person in every eight being the subject of one or the other varieties of hernia, it neither respecting age, sex, nor condition; has any definite procedure been devised which can be relied upon for relief?

Through all ages have all operations and appliances been practiced and used, the number being limitless, yet it is left for some future surgeon, as stated above, to immortalize himself by originating some treatment, yet unknown, before we can claim to cure this trouble.

In the experience of the writer the most perfect results have been brought about by the use of the truss. It is an unfortunate fact, probably due to the meagre results obtained, that the treatment of the hernia by the truss has so largely been relegated to charlatans and unscientific men. This is undoubtedly the fault of the regular profession, few of whom have studied this branch of mechanical surgery, and the common way of disposing of this class of cases by the general practitioner is to refer them to some druggist friend, or, if possible, to some instrument-maker, to have the instrument applied, who, as a rule, exposes his stock of trusses and allows the patient to choose for himself, just as if he was selling a pair of shoes or other article of wearing apparel; the result, of course, being a mere lottery, as it is no uncommon thing to find patients thus treated wearing right trusses on left hernias, or vice versa, or wearing them upside down or otherwise improperly. It is also a daily observation to surgeons who see a number of these cases to find trusses applied, often by the advice of a physician, upon cases of retained testicle, variocele, hydrocele, buboes, orchitis, dropsy of the scrotum, psoas abscesses and what not? This is due of course to the almost universal lack of knowledge, and therefore of interest, in this class of troubles.

The result of this mal-treatment is untold suffering and oft-times death, the vast

*Read before Jefferson County (Ky.) Medical Society.

majority of strangulated hernias being due to the mal-application of a truss.

Of the thousands of trusses of different varieties which are sold there are only one or two which are made upon scientific principles.

Any truss which gains its retentive power by constriction of the body, more particularly all forms of elastic truss, are made improperly, as every movement influences the relationship of the body and pad. Nearly all of the older patterns are made with the idea of producing irritation with the hope that the hernial opening may be closed by plastic deposit; of course, the opposite result is inevitable, as atrophic changes are sure to follow this severe pressure.

The true idea should be to simply prevent the entrance of protrusion into the canal, trusting to the natural tendency towards closure which takes place after the descent of the testicle. Th is tendency is in exact proportion to the youth of the patient, and the length of time the hernia has existed.

Therefore, the truss pad should be more or less flat, and its relationship to the part constant and undisturbed by any movement of the body.

Therefore, those trusses which acquire their force by antero-posterior pressure from sacrum to abdominal ring, without constricting the body, are best. This pattern is known as Hood's Truss. There is no need of any spring pressure, as with this arrangement of the encircling band the pressure can be graduated exactly.

After the proper truss is applied the patient should be carefully instructed how to use it and what is to be expected of his truss. The benefit to be derived, of course, being just in proportion to the intelligence with which it is used. This is oft times very difficult as nearly all patients, before they get advice from a scientific source, have been wearing trusses of various styles and patterns, and invariably think they know more about it than any one else; and almost universally insist upon applying the truss pad over the pubic bone instead of supporting the canal above.

What is known as the French and German trusses are constructed with this end in view and can be applied in no other way.

In the treatment of infantile hernia the problem is much easier, and except in very young subjects the same form truss as described above should be used. In younger children, say up to two years of age, where constant soiling prevents the use of the regular form of truss, the ordinary "T" bandage applied over a pad made of adhesive plaster, is the best form of support. Here the constriction of the body to obtain the requisite pressure is not harmful, as the muscular system is undeveloped, and the soft medium of infantile fat prevents a movement of the pad objected to above. These bandages can be made best of canton flannel and in sufficient numbers that a fresh one can be applied as often as constant soiling requires.

In those young cases where the condition is aggravated the Heatonian operation is very beneficial, simply as an aid to the truss, the temporary deposit of lymph preventing the easy descent of the hernia, and making the constant retention much less difficult.

There is no question but that a certain percentage of radical cures occur after any of the recognized operations, yet no man can conscientiously declare that a cure will result in any case; therefore, should we not apply a light support as a routine practice, or have we the right for the sake of ascertaining the value of one or the other procedures, to allow these cases to go without a support?

Even if an operation should be devised which would positively bring about a radical cure in this condition the abhorence of the knife on the part of the people will prevent the vast majority from taking advantage of it.

Therefore the truss will continue for all time, and it behooves us to educate ourselves in its application and a better understanding of its use, that these sufferers may be more scientifically treated.

Dr. J. B. James (*British Medical Journal*) states that he has been treating hæmorrhoids for years by simply applying calomel locally, and without exception his treatment has been successful, especially when inflammation was obvious in the hæmorrhoidal mass, characterized by mucous discharge and hemorrhage. Under this simple treatment the symptoms are speedily relieved, with the still more important subsequent advantage of the patient's restoration to health.

SOCIETY REPORTS.

JEFFERSON COUNTY, (KY.,) MEDICAL SOCIETY.

Meeting of March 15th, 1893.

"The Use and Abuse of Trusses," by Ap. Morgan Vance, M. D. (See page 687).

DISCUSSION.

DR. W. L. RODMAN: I think Dr. Vance has called attention to a very important subject; he could scarcely have selected one of greater importance than the use and abuse of trusses. It certainly is a subject that every practitioner in medicine and surgery should take a great deal of interest in, on account of the frequency that these cases are met with in practice. I have sometimes thought, however, that herniæ are not as common as the text-books tell us—some say one person in every thirteen, others one in every ten; Dr. Vance states, I believe, one in every eight. Certain it is that these conditions are very common, but it leads me to say that my own individual experience has not furnished the great number of herniæ one would expect from reading books. I examine on an average from 200 to 300 men for life insurance each year, and I am quite sure that in those subjects I examine I do not strike more than one case in twenty-five or thirty who has a hernia. I do not examine, however, many laboring men, and this may explain the small number of herniæ I meet with in life insurance risks. One man's experience is entirely to small to base statistics upon, or to form an opinion from. Certainly, from my experience, I cannot think that herniæ are as common as we are led to believe.

I fully agree with everything Dr. Vance has said on this subject; he is certainly correct in urging that every man who treats hernia should be very careful to write a note sending the cases to an instrument-maker rather than to refer them to a drug store; this is something that I never did in my life and never shall do. I see that the measurements are correctly taken and instruct every case of rupture to go to an instrument-maker and have a suitable truss adjusted and then report to me again. If the instrument-maker knows this is to be done he will be more careful in adjusting the truss, than he otherwise would. I think, as Dr. Vance has said, there is so much uncertainty (and some little danger) attending the operations for radical cure of hernia that probably the best thing to do is to follow the old practice of fitting each case with a truss and asking him to wear it the rest of his life, or so long as it retains his hernia and does so comfortably. I have rather undergone a change of heart in regard to the radical cure operations in the last year or two. I have done the operation a few times and have been successful in every instance. I have insisted upon the patients wearing a spica bandage, or some kind of light truss, for several months after the operation. I have changed more from what I have read than what I have done, because my cases have been so few as to hardly warrant me in making the change. When one reads of the number of operations done by MaCewan, Kocher, Bassini, besides Bull, McBurney, Marcy, and other men in this country, we are struck with the fact that they do cure a great many cases; in fact, the vast majority have gotten well after radical operation. I do not consider that any operation is a *radical cure* where you must supplement it by the continued use of a truss. The dangers of the operation in experienced hands are not great, still there is some danger in it. I do not believe a man will meet with more than two or three deaths in 100, possibly statistics do not indicate as large a death rate as that. W. T. Bull, of New York, has probably done more operations for the radical cure of hernia than any one else in this country. I remember he read a paper before the American Surgical Association three years ago. He reported 134 cases that he had operated upon, losing but two cases, I think. He operated upon very young children and very old men and women—some over eighty—taking the cases just as they came, in his operations at the Hospital for the Ruptured and Crippled, as well as other hospitals in

New York. Bassini, Kocher and MaCewan claim even better results than this. Bull is not very enthusiastic over the operation. He thinks that in a majority of cases the hernia recurs. He remarked to me the last time I saw him in New York, that "it was a nut for somebody else to crack; that no one had ever proposed a certain operation for the cure of hernia." I believe, however, that we strike cases very often where we are perfectly justified in advising the patient to have a radical cure performed. I think I have such a case now, a young man, twenty-four or twenty-five years of age, who has had inguinal hernia for a number of years, and has been three times to see me, urging the propriety of operation for radical cure.

The reason he has been talking about radical cure, is, I find, that he is very intimate with a medical student, rather a recent graduate, who has spoken about the propriety of having his hernia operated upon. I have declined each time and told him that as long as the hernia could be held up comfortably and safely I thought he should persist in the use of the truss, that while it would not cure him—because he had already worn it for seven years—still I thought it was better to wear it the rest of his life than to submit to an operation. He has rather "kicked over the traces," lately, and it was due to the fact that he was out taking violent exercise two or three weeks ago and the hernia came down, the truss probably getting out of fix some way, and he was laid up for a few days. He now says he is not going to wear a truss any more. In a case of this kind I think it is our duty to operate. I think he will be altogether in a safer condition by having a radical cure performed, rather than go without a truss, as he now does—he positively refuses to wear one any longer. I do not consider that the danger is very great; however, if I should operate upon him I should insist upon his wearing a light form of truss for three or four months afterward. I have seen some excellent results from radical cure operations for herniæ. I have spoken differently in societies before this, but I have watched cases in the practice of other surgeons, have also had a few myself, and have been reading a great deal upon this subject in the last year, and am fully persuaded now that a great many of these cases should be operated upon. In people who absolutely refuse to wear a truss, and who cannot be made to appreciate the fact that they take their lives in their hands every time they go out for a walk without one, an operation should be advised.

Dr. J. M. Krim: What would you consider as the greatest age at which a truss may be applied with the prospect of a permanent cure?

Dr. A. M. Vance: I have seen several cases in men over thirty that were cured by the truss. I think it depends entirely upon the intelligence of the patient and what is to be expected of him. He should never rise without the truss on, and there are a great many little things that should be taught a patient who is to wear a truss—no truss will sustain a sneeze, and every man who wears one should put his hand in his pocket and support the truss while sneezing. If a truss is applied early, we are apt to get a rapid result. I think perhaps the cure of herniæ in early life is simply the tendency that these parts have to contract, like the contraction after the descent of the testicle.

Dr. Trunnell: What is your experience with peritonitis following a ventral hernia, for instance, caused by violence? In the case I refer to there was marked strangulation, and after reduction there were distinct evidences of peritonitis for some time. There was complete cure of the hernia, and I believe the peritonitis following reduction had something to do with preventing return of the trouble.

Dr. A. M. Vance: I have never seen any marked peritonitis in cases of hernia. I remember seeing one case of incarcerated hernia in a woman; upon reduction she had a great deal of pain and some fever, which however passed off after giving salts. Possibly peritonitis assisted cure in the case referred to by Dr. Trunnell by thickening the peritoneum.

I agree with Dr. Rodman in what he says concerning the radical operation for cure of hernia, except that I think it is a misnomer until we can get something absolutely sure. I operate, of course, upon cases where I cannot do good work with the truss. I would not hesitate for a moment to operate upon the case he speaks of. I think the surgeon should fit the truss himself as he is the one to teach the patient its use.

PHILADELPHIA ACADEMY OF SURGERY.

Meeting March 6, 1893.

THE PRESIDENT, Dr. William Hunt, in the chair.

John B. Deaver presented a paper on

AMPUTATION AT HIP JOINT: ENCYSTED CARTILAGINOUS TUMOR NEAR SUBCLAVIAN VESSELS: OPERATION ON THE FIFTH NERVE.

Mr. President and Fellows of the Academy: I will first present a case of amputation at the hip joint, done for osteomyelitis of the femur. At the time of the operation the patient was very much depressed from sepsis, consequent upon prolonged suppuration. The only point of interest in the case from an operative point of view is that during the amputation hemorrhage was controlled simply by an Esmarch tube applied round the thigh, above the trochanter and along the crease of the groin, being retained here by two pieces of bandage, one passed beneath the tube in front and the other beneath the tube behind, each of which was held by an assistant. An oval flap of skin and fascia was made, and the muscles divided down to the bone by a circular sweep of the knife. The superficial and deep femoral arteries, with their accompanying veins, were next tied separately, as well as those of the muscular branches which could be recognized. The tube was next loosened a little, and the small vessels, as they bled, caught with hæmostats. The tube was now removed, and an incision carried from the external angle of the wound up over the trochanter and into the joint dividing the capsular ligament, when the muscles were carefully separated from the bone and disarticulation completed. The amount of blood lost, I do not think, amounted to more than two ounces. The advantage this procedure offers over the Wyeth method is in not dividing the femur before the disarticulation is made, and further, that the amount of blood lost is not any greater, and that the vessels not being constricted for so long a time, there is less likelihood of consecutive bleeding.

The tumor I here present is one of sarcoma, removed from the side of the neck, which had its origin from the periosteum of the vertebræ. The symptoms presented by the patient were those of laryngeal obstruction, paroxysmal in character and attended by the expectoration of large quantities of mucus. The symptoms of obstruction were not caused by pressure inflicted upon the larynx or traechea, but from involvement of the laryngeal nerves. Before the operation was performed I very much questioned if the removal of the growth would suffice to relieve the obstruction, which was afterward proven by the same symptoms continuing until death, twenty-four hours thereafter. The dissection was not a very difficult one, as the mass lay behind the large vessels, the pulsation of which was scarcely perceptible. The great amount of infiltration around the vessels must by necessity have involved the laryngeal nerves as well.

The second specimen is one of cyst, in the wall of which is a circular piece of cartilage. It was removed from the subclavian region of a man who was injured at the battle of Appomattox, April 9, 1865. When the accident occurred he was standing under a tree. He was not able to say, definitely, whether the injury resulted from being struck by a piece of shell or by a piece of wood from the tree. The only noticeable trouble at the time of the accident was fracture of the clavicle. From that time to the present a sinus has existed in the neck which patient states has been operated on without success. He was referred to me by Dr. Hildenbrand, when, upon examination, the orifice of the sinus was plainly to be seen, immediately above the inner end of the left clavicle, from which was escaping a purulent discharge and through which, upon the introduction of a probe, could be felt, what was believed, most probably, to be dead bone. Examination with the fingers demonstrated the presence of a partly movable mass which was thought to be a detatched piece of the clavicle which had undergone necrosis. Operation revealed the presence of this cyst; it was attached to the sheath of the

subclavian vessels and to the pleura. Examination of the clavicle through the wound showed no trouble other than a slight enlargement at the seat of the original fracture. Examination of the cyst wall demonstrated very clearly the presence of cartilage.

T. M., aged fifty-eight years, white, Irish, slate-roofer; from a child had been very nervous, the slightest excitement or undue exertion throwing him into paroxysms of nervousness. When twenty-eight years of age, had an attack of small-pox which was followed by a weeping sore over the right inferior maxilla. This continued to discharge for six years, when it healed. Immediately after the healing of the sore he was attacked with neuralgic pains which were referred along the course of the inferior dental nerve. This pain continued at irregular intervals for six years, when he consulted a surgeon, who was supposed to have removed a section of the nerve near the dental foramen. Very little, if any relief followed this operation, when a second was performed by the same surgeon one year later; this was followed by relief for one year, when he had another attack of the pain. He now came under my care. I trephined the inferior maxilla over the angle and removed a section of the inferior dental nerve. This was followed by relief for a period of fifteen months, when the pain again returned. I now opened up the field of the old operation, exposed the proximal end (stump) of the nerve, excised a part therefrom, chiseled away the roof of the remaining portion of the dental canal, and removed the distal portion of the nerve as far as the mental foramen. This was followed by relief for sixteen months, when the pain returned, being referred, in addition to along the course of the inferior dental, along the side of the tongue. I now simply cleared out the field of the old operation, but this was not followed by any marked relief. I again operated, this time taking out a vertical section of the ramus of the jaw as far as the sigmoid cavity, and removed a further section from the proximal end of the inferior dental, and at the same time a section from the gustatory nerve. This was followed by relief. I purposely refrained from taking a section from the inferior maxillary nerve immediately after it passes through the foramen ovale, also from performing an intra cranial operation, as I am not as yet, by any means, convinced that these more radical procedures are warrantable until the milder ones have been done without success. I can recall a number of cases, both of neuralgia of the inferior as well as of the superior maxillary nerve, where I have followed this course in relapsing attacks, with satisfactory results, to convince me that a longer period of relief from pain is offered the patient than would result, perhaps, by the more radical operations, removal of the Gasserian ganglion, etc., in the light of the present statistics.

DISCUSSION.

Dr. John B. Roberts: Twice I have had occasion to remove large malignant growths from the neck, and in both cases the result was the same as in Dr. Deaver's case. In one case, a child, I had to tie the internal carotid artery, and the child died on the second day with symptoms of brain implication. The other case was that of a man with a deep tumor requiring ligation either of the internal jugular vein or of a large branch close up to the vein, I now forget which. I thought that he was going to get well, but he died on the fourth or fifth day with symptoms, the origin of which I could not determine. The wound was aseptic and nearly healed. He was found to be breathing very rapidly, and sank in a few hours in a sort of collapse. I could not tell whether there was implication of deeper organs or heart clot. No autopsy could be obtained.

Dr. J. Ewing Mears: In the case which I reported and to which reference has been made by Dr. Deaver, I removed two and one-half inches of nerve and submitted it to Dr. DeSchweinitz for examination, and the condition found was that of fatty degeneration. It is important, it seems to me, that our studies should be directed toward ascertaining if possible, what the pathological condition is in these cases of trifacial neuralgia. I think that all of us have come to the conclusion that operative procedures appear, in most cases, to be hopeless so far as permanent relief is concerned. It is possible that from studies in regard to the cause of the condition, we may be able to indicate some method of operation which may prove more successful.

Last spring the members of the American Surgical Association were shown in the Massachusetts General Hospital the results in five or six cases of operations upon the second and third divisions of the fifth nerve for neuralgia. In these cases an incision had been made over the temporal region, the muscle cut through and the zygoma divided. By pressing the tissues down firmly the operator was able to reach the second and third divisions as they emerge from the foramen rotundum and ovale. In these cases the relief had extended, if I remember correctly, over three or four years, and in one case five or six years. From the reports which are given in Boston, this appears to be a very successful operation.

To my mind, the question of interest is in regard to the pathological condition. If the disease is of central origin I do not see how any operation on the peripheral terminations of the nerves can be of service. Repeated operations, such as Dr. Deaver performed, of course, give temporary relief.

Dr. W. W. Keen: I quite agree with Dr. Mears that the question of the pathology is a most important one. In the cases where I have had a microscopical examination made the change has been found to be one of sclerosis. In one case there were spots of distinct hemorrhage into the nerve. These were almost macroscopic. I have never seen the inferior dental nerve so large as in this case. That patient had a return of the pain, and a second operation was done. So far as I could determine, a new nerve had formed, and, strange to say, there was a branch of this nerve which went inward through a foramen on the inner surface of the jaw. I saw no such foramen at the first operation. Dr. Dana some time ago published a paper in which he stated that he had found sclerosis of the vessels rather than of the nerve. However this may be, it seems to me clear that the sclerosis of the vessels or of the nerve is the chief thing, and that this is a distinctly senile change. That it does not appear in early life we all know, but only in later life, when sclerosis of other organs appear. This being the case, I think that the operation of choice should always be the peripherial operation. I should not think of endeavoring to remove or break up the Gasserian ganglion as a primary operation. I was told the other day that one of Mr. Rose's cases had shown symptoms of return, and this is what might be expected, as the sclerosis begins rather in the periphery and works backward. While medicine offers no benefit in the majority of cases, we can, as a rule, assure a patient that an operation will afford at least one or two years of relief. I presume that some of Dr. Deaver's operations consisted simply in reaming out the connective tissue about the stump of the nerve. This I have done in more than one case and, although under the microscope no nervous tissue could be found in the material removed, the operation gave as much relief as followed a pure exsection of the nerve. This being the case, it seems to me that we should, as a general rule, endeavor to give relief by such a simple operation rather than immediately to go to the foramen rotundum or ovale or within the skull and remove the Gasserian ganglion.

I noticed that Dr. Deaver referred to destruction of the ganglion as not a serious operation. I should consider it quite a serious operation, although there have not been a large number of deaths. Rose has done it six or seven times, with one or two deaths. Andrews four times, without a death. Hartley once, with recovery, and Dr. Roberts once, with recovery. Besides this, two eyes, and possibly more, have been destroyed. It seems to me that any operation involving so much traumatism is to be considered a very serious operation, and should not be undertaken except after the gravest consideration.

Dr. James M. Barton: As has been said by Dr. Mears, we have not yet arrived at the pathology of neuralgia. One suggestion is, that it is due to small aneurisms, which have been found in the diseased nerves. This view is supported by the results of the ligation of the external carotid for this affection. Nussbaum claimed that one-half of the cases are permanently cured.

I can also confirm what has been said by Dr. Keen. The most trifling operation on the nerve, the slightest stretching, even the division of the distal branches is apt to afford temporary relief, and the most serious operation will not do much more.

So rare, in my experience, is anything like permanent relief, that I exhibited before this Society, a few months ago, as

something unusual, a case of neuralgia of the second branch, of thirteen years' duration, in which I removed the nerve at the foramen rotundum, and where the relief had continued for five years. The man is still free from the disease.

Dr. Thomas G. Morton: I am at present attending a patient, who is now eighty-two years of age, on whom I operated some twenty years ago. After the excision he had entire relief for many years; then had a recurrence of pain, brought on, apparently, by a ride of five miles in a wagon which had no springs, in which he was severely jolted.

For the last ten or fifteen years, although enjoying, indeed, robust health, he has, at times, suffered intensely, and then again having entire immunity from pain. Now the suffering is only relieved by morphine injections. Swallowing, talking, any movement of the tongue, touching the skin of the face, or even the beard, provokes "thrusts of pain."

In another case—now more than twenty years since the operation—the patient has had entire freedom from pain. As a rule, sooner or later pain reappears; but in such cases there is no reason why the operation should not be repeated. Benefit is generally experienced from each operation, and for even a measure of relief, patients are willing to submit to any treatment.

William J. Taylor, M. D.,* presented a report of

A CASE OF FRACTURE OF THE THYROID CARTILAGE.

Charles E., forty-three years, a carpenter, was admitted to the surgical ward of St. Agnes' Hospital on October 6th, 1892, in a semi-unconscious condition. He was unable to give an account of the accident. but a fellow workman reported that he had fallen a distance of about twenty feet, from a scaffold upon which he had been working. No one saw him fall but when he was discovered he was unconscious and lying across a heavy piece of wood. When admitted into the hospital, a short time afterward, he was unconscious, could be roused from his stupor, but could give no account of himself. He was very much shocked. The right side of his face was badly contused, the right eye swollen and completely closed. He was bleeding from the nose, mouth, and left ear, and his general appearance was that of a man suffering from a fracture of the skull. The pupils were equal, and a very careful examination showed this diagnosis to be an error. He had great difficulty in breathing, could not swallow, the saliva ran out of the corners of his mouth, and when he attempted to speak his voice was husky and his articulation very indistinct; he could not speak above a whisper, and only that with the greatest pain and difficulty. There was little or no swelling of the neck, but when he regained complete consciousness he complained of great pain and discomfort in the throat.

A careful examination revealed a fracture of the thyroid cartilage on the right side, extending from above downward about on a line with the insertion of the thyro-hyoid muscle and about two lines anterior to it. The amount of displacement was very slight, but the mobility of the fragments could be easily demonstrated, and the fragments displaced and replaced again by manipulation with the fingers.

Dr. Smock, the laryngologist to the hospital, very kindly examined him very shortly after his admission, and confirmed the diagnosis of fracture of the thyroid cartilage. He reported also a rupture of the tympanic membrane about at the extremity of the manubrium process of the malleus. The nose showed hemorrhagic points on the septum on both sides.

Dyspnœa was pronounced, but there was apparently no emphysema about the seat of the fracture or in the neck. His symptoms were severe, and the pain and discomfort very great, but I did not think them sufficiently so to demand immediate relief.

Dr. White, the resident surgeon, was instructed to make all preparations for instant tracheotomy, and to send for me if the symptoms should increase in severity. He was to use his own judgment, however, and to operate at once without waiting for me to arrive should the necessity arise. No attempt whatever was made to apply a dressing. For some days the bleeding from the mouth persisted, and the difficulty in swallowing

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and dyspnœa continued, but gradually lessened, and by the end of three weeks was entirely gone. His voice still remained somewhat husky, but there was no longer pain or difficulty in swallowing. The left ear was treated by cleaning out the auditory canal with cotton, and insufflating daily aristol and boric acid.

Dr. Taylor read another paper on

MULTIPLE FRACTURE OF BOTH UPPER EXTREMITIES.

Margaret C., aged fifty-six years, a widow, and by occupation a monthly nurse, was admitted to my ward at St. Agnes' Hospital on the evening of October 19, 1892, suffering from the most remarkable number of fractures, considering the amount of constitutional disturbance, it has ever been my fortune to see. She was going down the cellar stairway in the dark when she missed her footing and fell to the bottom, some eight or ten steps. From the nature of the injury she must have put out her hands before her in the hope of breaking the fall.

She was unconscious for a short time, and was then brought to the hospital in a patrol wagon, but recovered sufficiently to walk from the wagon into the receiving ward.

Upon examination it was found that she had received a lacerated wound of the scalp, six inches long and extending down to the bone, and a deep lacerated wound of the lower lip about two inches in length. There was a fracture of the surgical neck of the left humerus and an oblique fracture of the middle one-third of its shaft; a contusion of the left elbow and a fracture of the lower end of both the radius and ulna of the same side. There was a supra-condyloid fracture of the right humerus extending into the elbow-joint, forming a T. A fracture of the upper third of the radius and of the ulna, and a fracture of the lower radius. In spite of this great number of fractures and of the serious lacerated wounds she was able to walk into the hospital, and seemed to suffer comparatively little pain. Her temperature was normal, her pulse good, and there was no evidence of shock such as would have been expected from the nature of her injuries.

There was much difficulty experienced in adjusting and holding in place the different fractures, but with care and patience and plenty of plaster-of-Paris this was accomplished. Her recovery has been most satisfactory, and she has for all practical purposes full use of both arms.

Such an extensive number of fractures led me to suppose there must have been some serious lesion of the bones, but the most careful inquiries failed to give me any clue to such a state of affairs. She was a large, strong, and, apparently, perfectly healthy woman. She had never before had a fracture of a single bone, neither was there any history of fracture in any member of her family. She was born in Ireland, and had lived there until a few years ago, and had always been in good health and a hard worker.

DISCUSSION.

Dr. H. R. Wharton: Some years ago the President investigated the subject of fracture of the larynx and proved that tracheotomy was indicated, and that patients usually did better after this operation.

I would ask the experience of members in regard to multiple fractures, whether they have found much constutional disturbance or many cases of sudden death following multiple fracture. My own experience has been that generally patients do well. Last summer I had under treatment a boy six years old, who had fallen off of one of the tunnels of the B. & O. R. R., and sustained a compound fracture of the nose, fracture of both bones of each forearm, and fracture of both thighs about the middle of the shaft. The patient did perfectly well with normal temperature for a week. He was doing well when I last saw him at 12 o'clock. In the evening of the same day the resident noticed that his breathing was peculiar, and an hour afterward the patient was moribund. He died of some cerebral complication. I thought that it might be a case of fat embolism which is said to follow fractures. I have seen another patient die very much in the same way with a simple fracture of the femur. No post-mortem was made in either case.

The President: The conclusion of the paper which I wrote on fracture of the thyroid cartilage was that where emphysema and bloody sputa were present there had been up to that time no recovery where tracheotomy had not been

performed. I thought that tracheotomy should be done when the first symptoms were discovered. I found several cases similar to that reported by Dr. Taylor in which recovery followed without tracheotomy.

Dr. Thomas G. Morton: Some years ago I saw in consultation a lady, eighty-four years of age, who had gradually during ten years lost her vision from cataracts. Soon after this she sustained in a fall a fracture of both bones of the forearm, the humerus about the middle and the shaft of the femur near the great trochanter. Complete recovery from these injuries following showed such an excellent repair, that six months afterward I operated upon both eyes at the same sitting. Perfect vision followed in each, which continued until her death when in her ninety-seventh year.

Thomas S. K. Morton, M. D., then read a paper on (see next week.)

METATARSALGIA—WITH AN ACCOUNT OF SIX CASES CURED BY OPERATION.

DISCUSSION.

Dr. W. W. Keen: This affection has not seemed to me to be so frequent. I have seen only one case—this was a lady about going to Brazil. I operated five years ago on both feet. Since then she has been able to walk perfectly well and to dance.

Four years ago I had an attack which I thought might be the same. This attack interested me in connection with the diagnosis, because I had every symptom that Dr Morton has described. The attack came on about the time of my summer holiday, and I was unable to walk without limping from the excessive pain. When the pain came on I was compelled to go to my room or sit down where I happened to be, and remove the shoe. I had a pair of shoes made with a thicker and wider sole and a little larger, but without relief. When I came home I was tempted to have the operation done. I, however, consulted my friend, Dr. J. C. Wilson, who suggested a gouty origin, and put me on appropriate treatment, and the pain disappeared, and I have been perfectly well ever since. I mention this in connection with the diagnosis, as here there was the pathognomonic sign of having to sit down and remove the shoe when the pain came on.

Dr. Thomas G. Morton: As early as 1870 my attention was first directed to this painful affection of the foot, and I then felt satisfied that I had a malady which had not previously been described. In the *American Journal of the Medical Sciences* for January, 1876, I published an account of this painful local affection, and subsequently reported a number of cases which I had successfully operated upon. Later, in various journals the subject received attention until at present the disease is generally understood. In 1891, Dr. E. H. Bradford published an interesting account of a number of cases which had come under his care, and more recently numerous authors have given their experience.

A medical man from Hagerstown, Md., once called upon me and stated that he was seeking relief from a neuralgia of the foot, which was so terrible that he was willing even to submit to amputation of the limb. The only relief he obtained was by injections of morphia. The operation was completely successful, and the doctor went to his home on the third day afterward, and has never had any pain since.

I have generally found the disease in one foot; but occasionally in both, and have operated on both feet at the same sitting. Now and then I have amputated the toe instead of resecting the joint. The pain in many cases is slight, and only requires a proper shoe and a flannel bandage to keep the toes from rolling; in others nothing except an operation will suffice. In regard to shoes, a shoemaker of this city told me that one of his customers had more than fifty pairs, hoping in each new pair to have greater relief.

The point has been raised as to whether the painful nerve might not be excised instead of excising the joint of the toe. I apprehend there would be great difficulty in finding the nerve, and unless all the soft parts surrounding the joint were removed, some branches would remain; while if the pain is due, as I think it is, to the peculiar relation of the fourth joint as compared with the third and fifth, no treatment except joint removal will answer.

W. W. Keen, M. D., presented the following

METHOD OF OPERATING ABOUT THE FACE BY WHICH BUT LITTLE BLOOD ENTERS THE MOUTH.

I wish to call attention to a method of operating about the face which is not generally followed and which may be new to some. It is particularly applicable to epithelioma about the lip, of which I have had two severe cases in a comparatively short time. In one there was extensive epithelioma requiring the removal of a portion of the upper lip, the lower lip, and the cheek. The other case was one of epithelioma of the cheek, and is also of interest from the fact that the patient had originally been operated on forty years ago by Dr. George R. Morehouse. A microscopical examination was made at that time, and the tumor was said not to be epithelioma. When I saw the man the disease extended from the angle of the mouth back to the molar teeth, and from one jaw to the other. It was on the inside of the mouth exclusively, except at the angle where the entire thickness was involved. The external layer of the cheek seemed to be entirely free. In operating I placed the patient on a flat table with the operated side turned a little down and cut through the skin down to the mucous membrane, but not through the latter. I then secured all the vessels *before* opening into the mouth. In this way I prevented blood from entering the mouth and also lessened the total loss of blood. In this case Stenson's duct was involved in the operation. I found the duct and stitched it to the mucous membrane of the upper jaw, and there has not been the slightest trouble from fistula. The incision was a very wide V, the linear incision corresponding to the apex of the V being on the cheek, and the widest part is the base of the V inside the mouth. I am sure that those of you who try this method will find it satisfactory.

William Hunt, M. D., reported

A CASE OF APPENDICITIS.

This specimen was removed from a young girl who presented every sign of good health, but had been sent to the Pennsylvania Hospital by a physician outside, who had diagnosed possible stone in the bladder from the general symptoms. She was examined by the residents on admission, and they thought that they felt a stone. I saw the patient but once and I examined her for stone, but did not find one. I decided to let her rest and repeat the examination under ether the following day. At three o'clock she was taken with severe pain in the lower part of the abdomen. At eight o'clock she seemed to be doing well, but at eleven o'clock there was a return of the symptoms, and she died in two or three hours.

The coroner's physician was sent for and made an examination, and the death was ascribed to "idiopathic peritonitis." I and Dr. Morton were telephoned to this effect and immediately sent back word to make further examination. It was then found that the appendix was large and swollen and had a large perforation in it. The abdomen was full of pus. It was afterward learned that she had been ailing for two weeks, but there were no symptoms referable to the appendix.

DISCUSSION.

Dr. Thomas G. Morton: I have seen more than one case where it was impossible to make a diagnosis; the most remarkable instance was the following: In March, 1890, Dr. DaCosta and I were summoned to Trenton, N. J., to see a patient with Dr. Phillips, of that city. The patient was about forty-two years of age; he had been apparently in excellent health three days before; he became obstinately constipated and had nausea and had vomited; little or no abdominal pain and no swelling, a normal temperature, no chills, and pulse showed no acceleration. The bowel simply refused to respond to cathartics. Inquiry showed that there had been no former attack of pain in the appendix region. Calomel and fractional doses of podophyllin were given.

The following day there was a subnormal temperature and great prostration, but no evidence of local or general peritonitis, and the diagnosis could not be cleared up. Median exploratory abdominal section showed a foul abscess in the right iliac fossa; an inflamed gangrenous appendix; the ileum was covered with lymph, and for several inches showed structural change. Two days subsequently the patient died.

In reviewing this case I can see no way by which the nature of the case could have been determined; it seems hardly possible that perforative appendicitis and intestinal gangrene should not present at least some positive symptoms, yet in this instance, none such were present.

Dr. W. Joseph Hearn: I had a case at the Jefferson Hospital where the man had walked to the hospital the evening before, with a temperature of 101°. Dr. Keen saw him the next day, and we agreed that it was a case of appendicitis. Operation was done and a quart of pus evacuated. The man died subsequently.

Dr. T. S. K. Morton: In this connection, as illustrating how patients with very serious disease are able to perform almost incredible exertions, I may mention a case of strangulated hernia that walked to the Polyclinic Hospital to-day —quite a long distance—after his physician had made strong taxis for half an hour. The strangulation had existed for five days, and when I operated, the gut was found gangrenous.

Artificial Introduction of Labor.*

By H. Fehling, (*Berl. Klin. Wochen.*, 1892).

The author hopes by the improved methods of antisepsis or asepsis to reduce the number of Cæsarean sections by artificial induction of labor. The time for the induction of labor should not be before the thirty-fifth and not after the thirty-seventh week. A contracted pelvis is the most frequent condition which calls for the induction of labor, particularly flat pelvis.

The operation is not so satisfactory in a generally contracted pelvis. A careful examination is in all cases necessary. Particular attention should be given to the fact that in multiparæ there is usually an increase in the weight of each successive fetus. The operation should not be practiced where a pelvis is less than seven cm. in its true conjugate.

In light cases of osteomalacia, normal delivery may be expected since the pelvis may admit of some stretching. Further indications for the induction of artificial labor may be recognized in cases of retrocervical fibroids, and all tumors of the bony pelvis, as also in cases of marked inflammatory masses situated in the pelvis; the cases, however, which call chiefly for this treatment are those of chronic parenchymatous interstitial nephritis.

Cardiac diseases rarely produce symptoms sufficient to consider this operation; on the other hand, however, advanced cases of tuberculosis may serve as an indication.

A careful measurement of the pelvis is in all cases the most important, and the theories of Muller, who states that the induction of labor should not be practiced as long as the child's head can pass into the pelvic cavity, deserve careful attention, as well as that of Prochownick, who places stress upon an anti-fat treatment, which consists in avoiding all carbo-hydrates and fluids.

In order to facilitate the dilatation of the os internum he advises warm, not hot, vaginal douches six to twelve litres, twice daily. If this remains without the desired result an elastic bougie should be passed into the uterus and allowed to remain there several days, in case no fever presents itself.

If the pains have set in, a normal spontaneous delivery may be expected, all operative procedures are contra-indicated unless fever should set in.

*Translated for The Medical and Surgical Reporter by Marie B. Werner, M. D.

"Mamma, be late suppers bad?"

"Yes, my child, very bad."

"What makes 'em bad?"

"Why, it injures the health to eat just before going to bed."

"Oh, I thought maybe it injured the health to go to bed directly after supper."

The official reports of the cigarette manufacture, which are carefully taken by the Internal Revenue Department, gives a total of 16,581,646,440 cigarettes as the output for the past eight years. Taking the average length of each cigarette at three inches, this would make a total of 4,145,411,611 feet for the entire roll. Dividing this by 63,360, the number of inches in a mile, would make a total of 65,426 miles, or a cigarette girdle extending nearly three times around the earth. Calculated at the lowest retail rate of 50 cents per 100, the cigarette smokers of the United States spend $16,052,019 a year on their hobby.—*Nat. Med. Rev.*

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SATURDAY, MAY 6TH, 1893.

EDITORIAL.

MEDICAL SCHOOLS—THEIR MANAGEMENT.

Elevate the standard and improve the course of study in our medical schools is the cry which burdens almost every presidential address at the medical society meetings of each recurring year. This is commendable. It is a much needed reform. The standard raised, the course of study made broader and more generous, the time lengthened, and those small and puny mushroom schools which have sprung up like Jonah's gourd will, like it, wither within the coming day. Schools which now exist only as an advertisement for men who aspire to the rank of professor, without possessing the qualifications such a title should carry with it, will then disintegrate for lack of students.

The education of the laity must proceed hand in hand with the elevation of the medical standard till they no longer ask whether the doctor possesses a diploma, but whether that diploma is sufficient guarantee that he has pursued such a course of study as to fit him for the responsibilities of his duty as medical guardian of his community. The public must discriminate between the M. D. granted by the school which requires but two years' attendance on didactic lectures for a few months only and that given by the school which, richly endowed with every facility for acquiring knowledge, sends its graduate out fully equipped for his struggle with disease and death. People are too apt to look only at the title and judge one doctor as good as another without pausing to think what training he has had to entitle him to their confidence.

When the mere possession of a diploma does not carry with it a license to kill or cripple and when the practitioner of medicine must give some proof of his qualifications before he is permitted to take the health and the lives of his fellows into his care, then will students seek the best, and our great schools, located in large cities, possessing every laboratory and clinical facility for imparting instruction, will have classes worthy to be taught by the ablest men. The law of the survival of

the fittest will operate to the benefit of both the doctor and the doctored. Such a medical millennium is devoutly to be wished by all who have no axes to grind and who desire only that which conduces to the welfare of suffering humanity.

That such a state of affairs does not now exist, is due to the apathy of the public in regard to such matters, to the selfishness of would-be professors and the conscienceless egotism of small medical politicians who constitute a class of medical parasites which infests every small city, and is not entirely wanting in our larger ones, and who, vermin like, seek their own sustenance at the expense of every thing upon which they fasten.

The reforms just enumerated, while much to be desired are only a little of what must come, ere a medical education can be sought by the young men of our land under as favorable conditions as can be found in the pursuit of the various other lines of knowledge that go to make up a liberal course of study.

Too little attention by far is paid to the health and comfort of the student. In fact medical colleges as a rule set at naught every law of hygiene and violate every principle which conduces to a better understanding of the laws of health. Their students are rushed from clinic to clinic and from didactic lecture to laboratory or dissecting room until they have scarcely time to eat or sleep. The lecture rooms, laboratories and hospital amphitheatres are crowded and poorly ventilated. The foul air which the young disciples of Aesculapius are compelled to breathe has an enervating effect upon both body and mind. Young men often come away at the end of the finishing year feeling as though the battle of life was almost ended instead of having just begun.

Most of the schools are poorly lighted. Very often they depend largely upon a sky light over the centre or have to resort to artificial illumination in order that the work may proceed. They are as poorly warmed as lighted and, while parts of the center are scorched by the heat that brings to mind that place not named in the "*New Edition*," the circumference of the circle is suggestive of "Greenland's icy mountains." Add to all these defects the fact that filth itself is personified in the arrangements and furnishings of the different rooms and we may well marvel that students accomplish anything amid such environments.

The methods of selecting or appointing teachers or members of the faculty cry just as loudly for reform as any other part of medical college machinery. In the first place to get a position as a member of the faculty in some medical colleges requires more "influence" than learning and much more politics than brains. In the majority of cases the learned and successful men of the profession are too busy or too earnest to turn their attention to medical politics; and a scramble for place is so foreign to their mental make-up that they let positions go to mediocrity and brazen effrontery rather than enter a contest with men immeasurably their inferiors. Men who have nevertheless elevated skullduggery to a position as one of the fine arts.

When politics has exhausted itself, chairs have been known to be huckstered out to great wealth or family influence. Some noble sire with a large bank account has a relative whose mental endowment is not built on the same specifications as his dady's or his uncle's certificate of deposit. Things are then evened up by substituting a noble metal for a noble mind.

If the wealth that is given for erecting a new school in order that its founder's name may be known among men—schools that lead a precarious existence for lack of funds to properly carry on their work—if such wealth be applied to the endowment of schools already existing and earnestly endeavoring to give their students the best

training possible, then the men who, by their hard work and ceaseless application, have produced results that well entitle them to the position of teachers will have some inducement, beside the empty rank of professor, to lay aside the druggery of practice and devote their time to the proper education of our medical classes.

There is a practice too of keeping young men for three years, robbing them of time and money and finally plucking them. Such a method of dealing with students is worse than stealing. For in addition to losing both time and money, the young man has a stigma put upon him that sticks through life and is thrown at him by business rivals wherever he may go. A set of teachers that cannot find out sooner than three years whether a student can or cannot learn and whether or not he has natural ability and moral character sufficient to become a member of the medical profession, ought to be "investigated" by the trustees. This ought to be done to determine whether such teachers can impart instruction or are mere talkers against time.

The custom of having a great banquet at the close of the session to be paid for by the students or out of the $25.00 graduating fee, should be relegated to the past. If old men want to get drunk and grow mellow and loquacious they should foot the bill themselves and glorify and mutually compliment each other till they fall under the table if they wish to pass away the night in that way. The student at the end of his career as such, has usually spent all the money he has and all he can borrow. He should not be robbed for the worship of Bacchus.

"Elevate the standard and improve the course of study" is well enough as far as it goes but it is not all. Elevate the public to discriminate between the well trained, thoroughly equipped practitioner and the one who has gained his diploma in the least possible time and with the least possible outlay of brains. Elevate our generous wealthy men to the idea of bestowing their wealth where it will do the most good to the many and not where it will make the most niose and flattering adulation. Elevate the professor, make him a man without reproach—fit to be a teacher. Elevate the student to a proper understanding of his work—the practice of a God-given art, not a mere money getting scheme to be conducted on purely business principles.

Dr. H. S. Houghton says, in a recent number of the New York *Medical Journal*, that one must look upon the patient who has just passed through the third stage of labor as a sufferer of traumatism, has been wounded, and, therefore, her case belongs to the domains of surgery. As the first law of surgery is rest, so the lying-in period is a period of rest, so modified that the patient emerges from it a well and perfectly healthy woman. After the birth of the child, the mother must look forward to a period of six weeks of convalescence devoted solely not only to getting well, but to getting sound and strong. This period is divided into two weeks of absolute rest in bed, one week of alternate resting in bed and moving about the room; the fourth, in gaining the effects of fresh air and sunlight, and the last two in gradually resuming the household duties. By carrying out this plan, as given in detail in the paper, the writer says we may hope to do away with the too frequent evil consequences of childbirth.

The very latest addition proposed to the calendar is "Sanitany Day." This is to be a fixed festival, a given day in May to be devoted to the cult of the goddess Hygeia, and to the pious contemplation of bacteria and kindred topics calculated to make people cheerful, healthy and wise.

Rollo—Tell me, pa, is there any difference between common salt and chloride of sodium? Mr. Holliday—Yes, Rollo, a great difference. Salt is 2 cents a pound at the grocer's, while chloride of sodium is 50 cents a teaspoonful at the druggist's."

TRANSLATIONS.

CLINICAL INVESTIGATIONS REGARDING THE ENLARGED THYROID AND OPERATIONS FOR ITS RELIEF.*

By Prof. Kroelin, (*Zeurich Beitr. z. Klin. Chir.* ix., '92.)

The author had performed the operation for removal of goitre 202 times between the years of 1880 and 1892. Ten of these were done from 1880 to 1884, four of which ended fatally; 181 were cases of a benign character and were performed between the years 1884 to 1892, with three deaths. Among the 202 operations there were eleven cases of malignant degeneration, all of which required grave surgical interference. Five patients died during the operation or directly afterwards. Of the 191 cases of benign tumors three-fourths belonged to the female sex. The indications for the operations are not always for cosmetic improvements, but were frequently due to dyspnœa which, in some cases, were of so grave a character that when seen, the operation was performed almost immediately after. The seven deaths which occurred in 191 cases were caused as follows: One to fatty heart and subsequent collapse; two to suppurative septic mediastinitis; one to bilateral pneumonia; one to marasmus; one to suppurative bronchitis and pneumonia; one was due to the so-called "goitre death" in a tuberculous patient with fatty heart. The operation in seven consisted of total removal; 133 of partial extirpation; four to enucleation and in forty-six the goitre had undergone cystic degeneration; one case to intra-capsular eridement. The author adopted the method of extirpation with careful ligation of each vessel before cutting. Kroelin has carefully studied the symptoms of this disease and arrived at the following conclusions:

The choking attacks often occur in patients suffering from goitre in whom the larynx and vocal cords are normal.

The patients in which the diagnosis of unilateral paralysis of the vocal cords has been made (either partial or complete) may suffer years from dyspnœa but never have an actual choking attack.

Extirpation of the goitre will cure the choking attacks if every portion of the growth is removed that has produced pressure upon the trachea.

This result may be looked forward to with certainty even if paralysis of the vocal cords has been present before the operation.

The paralysis of the vocal cords will remain after the operation while the choking attacks will be cured. Should choking attacks occur after the operation, the cause is not in the larynx but will be found to be due to some external pressure upon the trachea (Recidir der Struma).

Not all goitres pressing upon the trachea will produce acute attacks of choking, since the pressure is sometimes of slow growth and produces a chronic dyspnœa. This form of dyspnœa may gradually become unbearable and the patient die from an increasing poisoning by carbolic acid gas.

The sudden attacks of choking and the so-called "goitre death" can not, however, be explained by the chronic carbonic acid gas intoxication, but there must be an additional reason.

This additional reason is the sudden increase of pressure against the trachea walls by which the contracted space is thoroughly closed.

These sudden increases in pressure are not to be sought in the tumor itself, but are due to certain extraneous surrounding influences which have pressed the tumor as a wedge against the trachea walls.

In mobile or wandering goitres, a certain dislocation of the tumor from a roomy space into a contracted one may sometimes be met with and produce a sort of incarceration, by which the goitre itself does not suffer so much as the more compressible trachea walls.

It is, however, more frequently noticed that the sudden increase of pressure of the tumors is induced by certain mechanisms in respiration, which may be released suddenly and involuntarily. Various respiratory muscles take part in this action. Those of principal importance can be

*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

mentioned as the throat and larynx muscles, the sterno-cleido-mastoid, the scaleni, the sterno-hyoid and sterno-thyroid.

The amount of pressure exercised upon the trachea and its resulting attack of choking, is due, first to the strength of the muscular action which pushes the tumor tightly against its walls.

In closing, the author makes the following statement as interesting to those collecting statistics for this operation:

Three patients were deaf and dumb upon whom this operation was performed; three were epileptics; one suffered from diabetes mellitus; six of tuberculosis of the lungs; four were pregnant; six suffered from Morbus Basedorrii.

In all these twenty-eight cases recovery was complete and in no case did a complication arise.

Of particular interest were the results in Morbus Basedorrii in which the recovery was complete.

"Myotomy During Pregnancy."

By Dr. Flaischlen, (*Berlin Cento. Bl. f. Gynæcol.* xvi, 92).

The patient, three months pregnant, was operated upon for the removal of pedunculated myoma. Another was found in the wall of the uterus, which was also removed. The surface of the womb was united by continuous catgut suture. The peritoneal covering of the uterus was united by fine silk sutures.

The patient made a good recovery and at the end of pregnancy gave birth to a living child.

BACTERIOLOGICAL NOTES.

The Anti-Cholera Vaccination.

Klein (*British Med. Jour.*, March 25th, 1893), records the results of his experiments concerning the Hoffkine cholera vaccination. He takes up agar against Hoffkine's method "which supposes that the lesion produced by intra-peritoneal inoculation of the cholera germs is characteristic to that species and that the fact that, under ordinary conditions, the animal dies after such inoculation, proves its specific pathogenic properties, and that if we protect the animal against death from such inoculation the claim may be made that the animal is protected or inoculated against cholera." Klein has repeated Hoffkine's method with six bacilli, viz.: cholera bacilli; vibrio of Finkler; bacillus coli; the proteur vulgaris; the bacillus podigiosus, and the bacillus of typhoid fever. In all cases the injection was followed by distinct illness. The guinea pigs generally die within twenty to twenty-four hours. The lesions produced by the different germs were practically the same. The same fatal results were obtained by injecting (intra-peritoneal) a slightly larger quantity of sterilized culture of these bacteria. "As only the bacteria themselves were used (scraped from the surface of agar cultures) for the injections it follows that all these six species of bacteria contain in their protoplasm a poisonous principle, which appears to be the same for all species, since the disease produced and the anatomical changes found on *post-mortem* examination were the same." The author found that smaller non-lethal doses (one-fifth to one-tenth of a culture) injected into the peritoneal cavity of guinea pigs produced temporary illness, and after recovery they were found to be refractory to otherwise fatal doses of the same species of bacteria. This condition was produced by the injection of non-lethal doses of both the living and sterilized cultures. The most interesting point was, that a guinea pig that was made immune to any one of these six bacilli (by intra-peritoneal injections of non-lethal doses) was also immune to any one of the others; for example, a guinea pig that was made immune or refractory to the *proteus vulgaris* was also immune to Asiatic cholera. He also found that repeated subcutaneous injections would render the animals refractory to the intra-peritoneal injection of an otherwise fatal dose.

Klein concludes that these six bacilli contain the same poisonous substance in their cellular protoplasm but it must be

carefully distinguished from the substances (ptomaines, specific toxins, etc.), which are elaborated by them in nutritive media including the animal body. These differ (*a*) from one another; and (*b*) from the intra-cellular poisons. The intra-peritoneal inoculation increased the virulence of the different bacteria as indicated by Hoffkine for the cholera germ. He also found, "that guinea pigs that were made refractory by the intra-cellular poisons were not immune to the specific toxines or against the growth and multiplication of the bacilli and the production by them of their specific toxines in that refractory body." [This fact, if sustained, demolishes to a great extent the anti-cholera vaccination as set forth by Hoffkine. The work is also of much value on account of the similarity of the results to those obtained by Roux and Rodet by intra-peritoneal injections of the typhoid and coli bacteria by which they attempted to prove the identity of these two species of bacteria. We now have evidence that at least six species of bacteria will produce the same results and, consequently, the relationship established by Roux and Rodet between the coli and typhoid bacilli does not hold. The results obtained by Dr. Klein should cool the over-enthusiasm which is being manifested in some places with reference to cholera-vaccination until more is learned of the method than is now known.—Ed].

The Purification of Drinking Water by Sand Infiltration; its Theory, Practice, and Results.

Sedgwick (*Journal of New England Water Works Association*, Vol. VII., No. 2), gives a full account of our present knowledge of sand filtration of drinking water. It is humiliating, but it is true, that the sanitary condition of many of our otherwise excellent water supplies is to-day discreditable to American Science, American engineering and American civilization. "So long as the water supplies of important cities like Chicago, Albany, Lawrence and St. Louis remain in their present condition so long will they constitute a blemish upon our fair civilization." It matters not how wonderful the tunnels, or how magnificent the pumps of any water works, if they convey to the confiding citizen the deadly germs of disease they must be considered failures.

Heretofore the selection of the sources of water supply has been influenced by the belief that impure water quickly, naturally and effectively purifies itself. It can no longer be claimed that the dangers of polluted drinking water are doubtful or imaginary. The purification of water from a sanitary standpoint is the most difficult kind of purification. The principal natural methods contributing to the sanitary improvement of water are *sedimentatives, storage* and *filtration*. Light, temperature, pressure and electricity have their effects, but an impure water is purified in nature chiefly by settling, for the bacteria have weight, and at least in some stages of their development, tend to settle.

Storage has an immense sanitary value. When allowed to stand some of the bacteria settle to the bottom and eventually perish; some are destroyed by light, but the disease germs, which are in water apparently somewhat short-lived, perish. It is also a fact that living bacteria largely disappear in the pipes of a service. To these facts we must look for the explanation of the limited infectiousness in some cases by water obviously badly polluted with raw sewage.

The natural method, which is more common and more trust-worthy, is *filtration* through the earth or sand. The sand filter was first introduced in England in 1839. This method is used most extensively in European cities, and the results that are obtained in comparing the death rate, from germ diseases, of the cities which use the sand filter and those which do not, are sufficient to guarantee its success.

The final conclusions reached by Dr. Sedgwick are: (1) *Every surface water before it is used for drinking purposes should be freed from all infectious substances.*" (2) *For this purpose, whenever large quantities of water are to be treated, sand filtration is at present the most convenient and effective method.*

Dispensary Physician. — "Take this medicine three times a day after each meal."

Dusty Rhodes.—"Haven't you forgotten to give me part of the prescription?"

Dispensary Physician.—"What?"

Dusty Rhodes.—"The-er-meal ticket. —*Puck*.

The Bacillus Coli Communis in Inflammatory Affections of the Anus.

A very interesting series of observations have been made by Hartmann and Lieffering (*Bull. de la Soc. Anat.* No. 3, 1893) on the pathogenic effect of the coli bacteria in the causatives of hemorrhoidal phlebitis and of some forms of perineal abscess. Their opinion is based upon the results of a careful examination (microscopical) of sections of blood-clots, and also cultures of blood taken from an inflamed external hemorrhoid.

The preparations made by the authors indicate that the inflammation is the result of the penetration of the coli bacteria into the affected pile as these bacteria could be seen in great numbers in the section of the clot and in cultures from the blood. On the other hand cultures made from the blood of non-inflamed piles remained clear. It has long been recognized that a painful and swollen condition of the external pile was the result of a phlebitis, and due to coagulation dependent on inflammation of the coats of the veins, but heretofore there has been much doubt as to the primary cause of the inflammation.

The Etiology of Emphysematous Cellulitis.

Frænkle (*Centralblatt f. Bakteriologie u. Parasitenkund*, xiii., Vol. 1, 1893), announces the result of a careful investigation into the cause of four cases of this affection. From the bacteriological examinations he was able to isolate the same bacillus from each case. In appearance it resembles somewhat closely the bacillus of anthrax. In is non-motile, anærobic and produces gas when grown under anærobic conditions. (The gas is supposed to be identical with that in the tissue though no analysis was made). No spores have been observed. Its pathogenic effect was determined by the subcutaneous inoculation of guinea pigs. It produced extensive cellulitis with gas. In the original cultures the bacillus was associated, in three or four cases, with pyogenetic cocci.

[It should be observed that this germ differs very considerably from the gas-producing germ found in the blood vessels, by Prof. Welch and Dr. Nuttall (*Bulletin Johns-Hopkins Hospital*, 1892, p. 81) and is undoubtedly a different species.—Ed].

ABSTRACTS.

THE PROTEOLYTIC ACTION OF PAPOID.

The juice of the papaw has long been known to possess the power of dissolving and digesting proteid matter. At one time, this peculiarity was looked upon as something quite unique, but in recent years other like ferments have been discovered in the vegetable world, and to-day several proteolytic ferments of vegetable origin are more or less widely known. Curiously enough there is nearly always associated with the proteid-dissolving ferment, a rennet-like ferment, just as we find the two ferments associated in animal secretions. Thus, in gastric juice, pepsin and rennet are close allies and companions, and similarly in the papaw a proteolytic ferment and rennet-like ferment are associated either in the form of a single substance endowed with the two functions, or more probably as two closely related enzymes.

Papoid, a preparation from the papaw plant, has the power of digesting to a greater or less extent all forms of proteid or albuminous matter, whether coagulated or uncoagulated. Furthermore, papoid is peculiar in that its proteid-dissolving power is manifested in a neutral, acid and alkaline medium. To be sure, the proteolytic power of the ferment is not quantitatively the same under the above three distinct conditions, but it is plainly manifest in acid and alkaline solutions, as wel as in a neutral fluid, provided of course the percentage of acid or alkali is not too large. With coagulated proteids, as cooked beef proteid, the highest digestive power is obtained in the presence of 2–4 per cent. sodium bicarbonate. The relative ferment action in the presence of acids and alkalies is well exhibited in the following series of experiments with coagu-

lated beef proteids.

The beef proteids used were prepared by passing lean beef through a hashing machine, washing it thoroughly with water until all blood was removed and it had become nearly white in color, after which it was completely coagulated by being boiled in water, and then pressed as dry as possible. So prepared 10 grams of the beef proteids contained 3.7438 grams of dried proteid (dried at 110° C.)

Each digestive mixture contained 0.5 gram papoid, 10 grams of the prepared beef, and 25 c. c. of water in which were dissolved the indicated percentages of acid and alkali.

The digestions were warmed at 45° C. for five and a half hours, with frequent stirring, after which the undigested residues were filtered off on weighed filters previously dried at 110° C. The undissolved matter was next washed with hot water until all soluble products were removed, then dried at 110° C. until of constant weight.

From these results it is manifest that papoid will digest and dissolve cooked beef proteids with a fair degree of readiness, and further that the ferment acts most energetically in the presence of 2–4 per cent. sodium bicarbonate, while a slight addition of acid increases the solvent action a trifle over that of the neutral solution. Hence, papoid is peculiar in that it will digest proteid matter in a neutral fluid, in this respect resembling trypsin, the proteolytic ferment of the pancreatic juice. But trypsin is a ferment associated with an alkaline secretion, and as a proteolytic agent acts to advantage only in alkaline fluids. Papoid agrees with trypsin in so far that its proteolytic action is increased by the presence of an alkaline medium, in some cases greatly increased by the presence of 2–4 per cent. sodium bicarbonate. On the other hand, the action of papoid in a neutral solution is increased by the addition of very small amounts of hydrochloric acid, and in some cases the increase is very marked.

Another action to be noted as characteristic of papoid digestion is the peculiar change it produces in the proteid acted upon. The exact character of this change is dependent upon the condition of the proteid and, in part, upon the character of the medium in which the digestion is carried on. Thus, with a coagulated proteid, as cooked beef, there is a rapid disintegration and falling apart of the proteid into tiny fragments, until at last the undigested matter has the character of a pultaceous residue. Hence, in this respect papoid resembles trypsin. This peculiarity is especially noticeable in the digestion of cooked beef, or boiled blood-fibrin, with papoid in the presence of 0.1 per cent, and 0.2 per cent. hydrochloric acid. The natural tendency of the acid under such circumstances, especially at 45° C., is to cause the beef fibres to swell up, but this tendency is gradually counteracted by the presence of papoid and eventually, but more slowly, there comes about the same disintegration of the proteid seen in a neutral or alkaline solution. With a raw, or non-coagulated proteid, on the other hand, there is at first, especially in an alkaline solution (sodium bicarbonate) a softening action, which is in great part independent of the alkali; followed it may be, by the formation of an almost solid homogeneous, jelly-like mass, in which the fibres lose their individuality, thus differing from the swelling produced by the alkaline fluid alone. As digestion proceeds, the jelly-like mass gradually becomes thinner from the secondary or solvent action of the ferment. The same softening, though less pronounced, shows itself with a neutral solution of papoid, followed by more or less disintegration, although the residue never takes on the appearance seen in the digestion of a cooked proteid.

Another point characteristic of papoid is its ability to act in the presence of a small amount of fluid; indeed, its best and characteristic action is seen only when a small volume of fluid is present. In this respect it differs very markedly from the animal ferment pepsin, and for this reason any direct comparison of the two ferments is practically impossible, since they act best under such widely different conditions.

Still another peculiarity of papoid is its great resistance to the ordinary destructive action of high temperatures. Animal ferments, especially those concerned in the ordinary processes of digestion, act most energetically, as is well known, at approximately the body temperature. Raising the temperature to near 60° C. quickly brings about a diminution in digestive action, followed by a gradual de-

struction of the ferment. Lowering the temperature below that of the body is likewise accompanied by a diminution in digestive action, although ordinarily less marked than the inhibition caused by a rise of temperature. With the animal proteolytic ferments pepsin and trypsin, digestion is very slow at, say 20° C. With diastase, the vegetable amylolytic ferment, the most rapid conversion of starch into sugar takes place at about 55° C.

A study of papoid digestion with reference to the influence of temperature on the rate of proteolytic action has shown several very interesting results. Thus, in an acid solution (boracic acid) a larger amount of cooked beef proteids is dissolved at 70° C. than at any lower temperature, while even boiling the ferment solution fails to destroy entirely the action of the ferment; a fact which is especially true of an alkaline (sodium bicarbonate) solution of papoid. Furthermore, at a comparatively low temperature, 20° C., digestion is very pronounced in both a neutral and acid solution of the ferment, while in an alkaline fluid digestive action is almost as great at 20° C. as at 45° C.

The three series of experiments illustrative of these points, were made at the same time and under exactly the same conditions, excepting the specified variation in temperature and reaction. Each digestive mixture contained 0.5 gram papoid, 10 grams of prepared cooked beef (equivalent to 3.5538 grams of dry proteid) and 25 c. c. of fluid; the latter consisting of water alone in the neutral series, of 2.0 per cent. boracic acid in the acid series, and of 2.0 per cent. sodium bicarbonate in the alkaline series. The digestions were continued at the given temperatures for six hours, the fluid itself being brought to the required temperature before the proteid was added.

We notice in these results that in an acid solution (boracic acid), papoid is slightly more active than in a neutral fluid, while in an alkaline solution (sodium bicarbonate) the activity of the ferment is increased very greatly; and further, that this relationship holds good practically for all temperatures. The most striking facts, however, brought out by these experiments are: first, the marked activity of the ferment at the comparatively low temperature of 20° C. (the temperature of the room at the time the experiment was tried), especially in an alkaline fluid; and secondly, the retention of proteolytic power after the solution of the ferment has been actually boiled. Here, too, the alkaline solution appears to exert a certain protective influence upon the ferment, which is difficult to explain. Certainly, sodium bicarbonate alone will not dissolve a coagulated proteid to any great extent, as has been demonstrated in connection with other experiments. Hence, we are forced to the conclusion that in an alkaline fluid especially, papoid is extremely resistant to the inhibitory effects of low and high temperatures, so characteristic of most known ferments. This being true, it is obvious that papoid in the presence of sodium bicarbonate possesses special advantages in cases where it is desired to soften or digest tissue or other proteid matters, at comparatively low temperatures. At the same time, as before stated, it is a ferment very resistant to the ordinary destructive effects of high temperature, and is especially characterized by exhibiting its maximum digestive power at about 70° C.

The mere fact that papoid exerts a certain amount of solvent action on proteids does not necessarily imply a true digestive action akin to that of the ordinary digestive ferments. As is well known, the latter agents exert their solvent action by virtue of certain chemical changes they induce, as a result of which new and for the most part soluble products result, of of which the proteoses, or albuminoses, and peptone are the principal representatives. It is to be presumed, however, that papoid acts in a similar manner. Indeed, Martin long ago pointed out that the proteolytic ferment of papaw juice, acting on blood fibrin, formed large quantities of peptone, together with leucin and tyrosin, as products of its digestive action. Such experiments as I have tried bearing on this point clearly show that the proteid-dissolving power of papoid is due to a genuine ferment action, whereby soluble products are formed, which, so far as ordinary chemical reactions show, are closely akin to, or identical with, those formed in gastric and pancreatic digestion. Leucin and tyrosin are likewise formed, thus showing in another way the resemblance of this ferment to the trypsin of the pancreatic juice.

While, in a general way, the final pro-

ducts of papoid digestion are essentially the same under all ordinary circumstances, certain differences appear in the primary or side-products, coincident with changes in the reaction of the digestive fluid and in the nature of the proteid undergoing digestion. Some of these points may be briefly summarized.

In the digestion of coagulated egg-albumin with an alkaline (2 per cent. sodium bicarbonate) solution of papoid, even when the digestion has been long continued (say 18 hours) at a favorable temperature, and the ferment solution strong, there invariably remains a fairly large undissolved residue. At first glance this might be considered as a residue of unaltered coagulated albumin. On being tested, however, it is found soluble, in great part at least, in warm 0.2 per cent. hydrochloric acid, from which solution it is precipitated by addition of 0.5 per cent. sodium bicarbonate, and redissolved by an excess of the alkaline fluid. This residue is, likewise, directly soluble in warm 0.5 per cent. sodium carbonate, and is precipitated by neutralization. These two reactions clearly indicate that the above residue cannot be composed of unaltered coagulated albumin, since this substance is wholly insoluble in dilute acid and alkali. The only plausible inference, therefore, is that the so-called insoluble residue in this case is composed of an albumose-like body, insoluble in 2.0 per cent. sodium bicarbonate; a possibly primary or side-product of the papoid digestion of coagulated egg-albumin. It is evidently a somewhat unique body, differing from heteroalbumose, and from ordinary globulin, by being soluble in salt solution. Aside from this peculiar insoluble body, the other products of digestion isolated were deuteroalbumose, a fairly large amount of peptone and some leucin and tyrosin.

In the digestion of raw-blood fibrin with a neutral solution of papoid, a somewhat different condition of things was observed. The undissolved residue contained, perhaps, a small amount of the body so characteristic of the digestion of coagulated egg-albumin but certainly not a large amount. The clear filtered digestive fluid, however, gave evidence of the presence of a peculiar body which was wholly wanting in the digestion of the coagulated albumin. Thus, the addition of water to the clear neutral fluid gave a heavy white precipitate of what was later proved to be an albumose-like body, readily soluble in a little 10 per cent. salt solution. Addition of 0.2 per cent. hydrochloric acid, likewise, produced a heavy white precipitate of the same body, easily soluble in a slight excess of acid. Boiling the neutral solution also gave rise to a heavy precipitate or coagulum, apparently the same body as that precipitated by water and by dilute acid, slowly but completely soluble in warm 0.2 per cent. hydrochloric acid and in warm 0.5 per cent. sodium carbonate solution. Hence, this body is a soluble albumose and not a coagulable globulin. It is completely precipitated from a neutral solution by heat, and partakes of the general character of heteroalbumose, being insoluble in water but completely soluble in salt solutions, as well as in dilute acid and alkali. In addition to this peculiar primary body, there was also found a large amount of more soluble primary and secondary albumoses, together with true peptone, leucin and tyrosin.

In the digestion of cooked beef proteids with a neutral solution of papoid, as likewise with an alkaline solution of the ferment, the peculiar heteroalbumose-like body above described was wholly absent; only the ordinary primary and secondary albumoses were observed, together with a large amount of peptone and some leucin and tyrosin.

From the above results, it is plainly evident that the power possessed by papoid of dissolving various forms of proteid matter is dependent upon an ordinary digestive action akin to, or identical with, that of digestive ferments in general, whether animal or vegetable.—Prof. Chittenden in *Dietetic and Hygienic Gazette.*

Mother.—My daughter is tongue-tied and I fear her entire future is ruined.

Doctor.—Don't worry, madam. There'll be dozens of widowers only to glad to marry her.

Tramp. "Say, mister, don't you want to give me somethin' to do?"

Merchant. "You! Nonsense; what can you do that would be of the least value to me?"

Tramp. "Well, I'd move on for a dime."

EPISTAXIS.

Undoubtedly plugging the nares by aid of Bellocq's cannula, says Dr. Philips, is an excellent method, but occasionally, especially in country practice, a Bellocq's cannula is not at hand, and some method easy, effectual and effected by material always within reach, must be resorted to. Such a method I have found in the following: A piece of old, soft thin cotton or silk, or oiled silk, about six inches square (a piece of an old handkerchief will answer) is taken, and, by means of a probe, metal thermometer case, or penholder, or anything handy, is pushed centre first, "umbrella fashion," into the nostril, the direction of pressure when the patient is sitting erect being backward and slightly downward. It is pushed on in this fashion until it is felt that the point of the "umbrella" is well into the cavity of the naso-pharynx. The thermometer case or probe, or whatever has been employed, is now pushed on in an upward direction and then towards the sides, so as to pull more of the "umbrella" into the naso-pharynx. The thermometer case is now withdrawn. We have now a sac lying in the nares, its closed end protruding well into the pharnyx behind, and its open end protruding at the anterior opening of the nares. If it be thought necessary, and is convenient, the inside of the sac may be brushed with some household astringent, such as alum solution, turpentine, etc. A considerable quantity of cotton-wool is now, by means of the thermometer case, pushed well back to the bottom of the sac. Then the thermometer case being held firmly against the packed wool, the mouth of the sac is pulled upon, and thus its bottom with the wool packed in it is pulled forward, and forms a firm, hard plug wedged in into the posterior nares. We may now pack the sac full of cotton-wool, dry or soaked in some astringent solution. The mouth of the sac may now be closed by tying it just outside the nostril with a piece of strong thread; it is then trimmed with scissors and the ends of the thread secured outside.

The above method is easier than any I know when both nostrils have to be plugged. It might be suggested to oil the cotton or silk in order to render its introduction easy and to prevent it adhering to the mucous membrane, and to render it easy of removal; but I have never found any difficulty without the oil, as the blood renders the material wet and easy of introduction, while the oil does not facilitate removal, and may modify the effect of the astringents that may be used. The plug may remain *in situ* as long as any other nose plug. In removing the plug open the mouth of the sac, and with small dressing forceps remove the cotton-wool bit by bit; if there is bleeding, simply syringe the sac with weak carbolic lotion or Condy's fluid and repack with clean cotton-wool, or wool impregnated with some antiseptic. If there is no bleeding when the wool is picked out, gently pull out the sac; or if it be adhering to the mucous membrane, syringe in a little warm water, and it may then easily be removed. This method has many advantages. (*a.*) It is easy, quickly accomplished, and effectual, and the materials are to be found in every house, and indeed, about everybody's person (I have plugged in this manner, simply using a handkerchief, one part of which was used for the sac, and the other torn into narrow strips in place of the cotton-wool). (*b.*) No damage is done to the floor of the nose or back of the soft plate by strings, etc.; (*c.*) no disagreeable hawking, coughing or vomiting takes place while the plug is introduced; (*d.*) there are no dissagreeable strings left hanging down the throat, causing coughing or sickness while the plug is in; (*e.*) the plug can be removed gently without any force, so that no damage is done to the mucous membrane and no return of hemorrhage caused. I employed this method frequently when in country practice, and do so now in bleeding after operation on the nares, and have always found it to be satisfactory. As the method has been of great use to me, and as I am not aware that anyone has spoken of it before, I take the opportunity of mentioning it, in the hope that it may be of some use to some brother practitioner when confronted by an urgent case of epistaxis, and other means of plugging are not at hand.

CURRENT LITERATURE REVIEWED.

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES

For May, contains a paper by Dr. Willian B. Coley, on

The Treatment of Malignant Tumors by Repeated Inoculations of Erysipelas.

In his paper the author presents the report of ten cases treated by him and in addition he has collected and tabulated all the reported cases of carcinoma and sarcoma in which erysipelas, either spontaneous or artificial, intervened. His conclusions are based upon a careful study of these cases as well as the practical experience derived from his own observations. The close resemblance of cancer to other diseases known to be of bacterial origin is discussed and the work of Sir John Simon in pointing out this analogy is referred to. The author considers that hereditary influence only supplies the *predisposing conditions* in cancer as in tuberculosis. "There is," he says, "a growing tendency to no longer adhere to the stereotyped classification of 'tumors,' and we venture to perdict that in the near future, instead of 'tumors,' a class at present embracing elements without the remotest analogy either in their etiology or mode of development, we shall have two main groups—the first of which might be designated as *congenital hypertrophies*; the second, *neoplasms*, etiologically dependent upon infection from without." The analogous diseases in animals and plants also receive due attention from the author and he refers to the fact that the "galls" on trees have been proved to be of parasitic origin and that "coccidial infection" in animals presents an analogy so striking that many observers have considered it identical with cancer. He offers the following explanation of the influence of erysipelas on malignant tumors: "If a small quantity of blood serum of an animal rendered immune to tetanus is capable of destroying or rendering inert the virulent bacilli in a fresh case, it is quite easy to understand that the toxic products of the erysipelas streptococci might bring about such changes in the blood-serum as to destroy the parasite of cancer. The parasite having been destroyed, the irritation would consequently cease, and this would lessen the hyperæmia on the parts, upon which factor the life of the tumor-cells of low vitality depends." So far as the author is aware, his cases are the only ones that have been treated by repeated injections of the pure fluid culture of erysipelas. The doses employed have varied with the age and virulence of the culture but he has aimed to obtain a good reaction, a temperature of 104° or 104½° frequently following. The effect upon the tumors was more marked in the cases of sarcoma than carcinoma, but all cases showed a cessation of growth and a more or less marked diminution in size. The results from an attack of true erysipelas have been far more brilliant and permanent. In view of these results the author thinks it may be considered proven that a portion if not all, of the benign influence rests in the toxic products of the erysipelas germ rather than in the germ itself. The dangers associated with erysipelas also receive due consideration and the author presents the following conclusions:

1. The curative effect of the erysipelas upon malignant tumors is an established fact.
2. The action upon sarcoma is more powerful than upon carcinoma, in about the ratio of 3 to 1.
3. The treatment of inoperable malignant tumors by repeated inoculations of erysipelas is both practicable and not attended with great risk.
4. The curative action is systemic, and probably due chiefly to the toxic products of the streptococcus, which products may be isolated and used without producing erysipelas.
5. This method should *not be employed indiscriminately* until further experiments have proved its limitations.

In a foot note added since the above article went to press the author reports a fatal case of erysipelas following inoculation—a large inoperable sarcoma of the neck.

Dr. Egbert H. Grankin presents

A Clinical Contribution to the Subject of Symphysiotomy.

The author sounds a note of warning lest the profession be carried away by the "symphysiotomy wave" which is sweeping over the country and which may be followed by the same abuses as the "abdominal section wave" of a few years ago. The author holds that "at present it may fairly be claimed that symphysiotomy should not have a mortality rate, where it is resorted to on a patient not exhausted by protracted labor, or by ineffectual attempts at delivery by other means and on a patient not septic. Other things being equal, further, the child should be saved. Injury to the bladder and urethra is avoidable. Hemorrhage is only likely to occur where an improper incision has been made, and if it do occur it may be controlled. Sepsis here, as elsewhere in surgery, means faulty technique. His experience leads him to favor a primary incision extending upward from the pubic eminence. He regards the downward incision, to one side or the other of the clitoris, as faulty and unnecessary. He also believes it is better to avoid where possible the cutting of the insertion of the recti. The finger should be inserted between the recti, and when hooked under the symphysis, should remain there in order to guard the bladder and urethra from injury. The incision through the symphysis should be made from above downward, and from without inward. The subpubic ligament should be severed by cutting down on the finger. In the average case a stout bistoury will suffice for the operation. The subpubic ligament must be severed in order to secure the separation at the symphysis

which leads to increase in the pelvic diameters. When bringing the bones in apposition, after delivery, especial care must be taken to depress thoroughly the uretha and vesical neck else these will be nipped and a vesico-abdominal fistula result. The author reports the following cases:

CASE I. 19 years old; primipara at term. Forceps were applied ineffectually. Version was contraindicated. The pelvic measurements were:

Spines	$8\frac{3}{4}$	inches.
Crests	$9\frac{3}{4}$	"
Antero-posterior, about	7	"
Conjugata vera (under chloroform)	$3\frac{1}{4}$	"

The diameters of the fœtal head were:

Bi-temporal	3	inches.
Bi-parietal	$3\frac{1}{2}$	"
Sub-occipito-bregmatic	$3\frac{3}{4}$	"
Occipito-frontal	$4\frac{3}{8}$	"
Occipito-mental	5	"
Circumference	$13\frac{3}{4}$	"
Weight of child (a female)	7.1	lbs.

Two days after delivery a deep and extensive sub-mammary abscess was opened. On the seventh day a mural abscess broke through the line of incision; on the tenth day a vesico-abdominal fistula appeared; and later a catarrhal laryngitis and a double crural phlebitis. The fistula closed spontaneously; the patient was first out of bed on the fifteenth day, and walked for the first time on the thirty-fifth day. There exists close union at the symphysis, and no mobility.

This woman could only have been delivered otherwise of a living child by the Cæsarean section and symphysiotomy was elected in order to avoid stillbirth and embryotomy of the living child. The child might have been dragged through by forceps, but dead and at the expense of the maternal soft parts.

CASE II. 23 years old; primipara. Efforts at inducing premature labor had been made without success. The pelvic measurements were:

Spines	$9\frac{1}{2}$	inches
Crests	$9\frac{3}{4}$	"
Antero-posteior	$6\frac{3}{4}$	"
Conjugata vera (under chloroform)	3	"

The measurements of the fœtal head were as follows (the child being premature by about four weeks):

Bi-temporal	$2\frac{5}{8}$	inches
Bi-parietal	$3\frac{3}{8}$	"
Occipito-mental	$4\frac{7}{8}$	"
Occipito-frontal	$4\frac{1}{8}$	"
Sub-occipito-bregmatic	$3\frac{3}{8}$	"
Circumference	13	"
Male child, weighing	5.1	lbs.

The convalescence of the patient was uneventful. The author concludes that under the new order of things he is obliged for the present to look upon symphysiotomy as an operation bidding fair to displace the Cæsarean section under the relative indication.

Dr. Roswell Park discusses the subject of

Pseudarthrosis

(Including all varieties of delayed and non-union).

I. Simple delayed union; which may be caused by shock, old age, rhachitis, gestation, lactation, scrobutus, syphilis, cancer, paralysis, local unrest.

II. Complete separation; detachment of fragments; non-union. May be due to the above causes, faulty fixation, interposition of soft parts. The bone ends may be variously altered.

III. Fibrous union. With or without much deformity.

IV. Osteophytic pseudarthrosis. May be connected with tuberculosis, syphilis, cancer, hydatid cysts, etc.

V. Fibro-synovial—true new joint.

The surgical treatment of the condition is carefully considered under the following heads:

1. Stimulation without penetration of the bone. 2. Stimulation and irritation of the seat of fracture by something introduced from without. 3. Exposure of the parts and mechanical fixation. In the paper thirteen cases are reported illustrative of the subject.

Dr. Edward Blake contributes a paper entitled "Neuroses and Arthropathies: are they related?" in which he seeks to establish the following: 1. That there is a relation between chorea and chrondritis. 2. That the nexus which unites them is a common causation. 3. That the relationship is not confined to chorea and chondrosis, but that it exists with regard to the neuropsychoses and all the arthropathies generally.

Alexander McPhedran, M. B., and John Caven, M. D., L. R. C. P. Lond., contribute the report of a case of "Diffuse Tubercular Hepatitis with Tubercular Pericarditis." Dr. Harry Friedenwald discusses the subject of "Cranial Deformity and Optic-nerve Atrophy," presenting a tabulated report of cases from various observers. George Heaton, M. A., M. B. Oxon., F. R. C. S. reports "A Case of Cerebral Abscess following the operation of Trephining for Compound Depressed Fracture of the Skull; Drainage of the Abscess; Recovery." Dr. John B. Roberts contributes a paper on the "Cure of Complete Prolapse of the Rectum by Posterior Proctectomy." Dr. W. Page McIntosh reports a "Laparotomy and Removal of Cystic Tumor (cysto-adenoma) of the Peritoneum; Formation of Artificial Anus; Subsequent Laparotomy and Resection of the Colon; Closure of the Artificial Anus, Recovery."

THE MEDICAL CHRONICLE

Of Manchester, England, for April, contains an exhaustive paper by Dr. Graham Steell on "Heart Failure as a Result of Chronic Alcoholism." The paper is a thorough discussion of the subject into which the author enters minutely, illustrating the various points by tracings from the shygmograph. Dr. Patrick Hehir contributes an article on "The Hyderabad Chloroform Commissions" in

which the work done and the results published by the commission are reviewed. The author was the president of the second commission. The article contains nothing additional to the published findings of the commission. In the department of "Clinic," Dr. Thomas Harris reports a "Tumor (angiolithic sarcoma) of the Dura Mater compressing the Motor Area of the Cortex of the Right Cerebral Hemisphere." Clinically, one of the most interesting features was the complete absence of any convulsions, unilateral or otherwise, until the slight convulsive attack which immediately preceeded death. Another point of special interest in reference to cerebral surgery is the fact that although at the post-mortem examination the tumor was so large, and had compressed and displaced so much brain substance, that complete recovery of power over the left arm and leg could not have been hoped for; yet, had the growth been submitted during life to surgical interference, it could have been removed. It was sharply circumscribed, could have been shelled out, and the surrounding brain substance was neither infiltrated with growth nor softened, as is so frequently seen around cerebral tumors.

Pathologically the growth is of interest from the microscopical structure, especially on account of the hyaline changes which the blood vessels showed, and the subsequent deposition in the tissue, which obliterated the vessels of crystalline salts. The growth appears to correspond somewhat closely to what Cornil and Ranvier describe as an angiolithic sarcoma.

Dr. Judson S. Bury reports "A Case of Cortical Tumor involving mainly the First Left Frontal Convolution." The alleged cause of the symptoms was a blow on the head.

Both these reports are illustrated by woodcuts showing the location and relations of the tumors reported.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY.

Especially well timed and important is a paper in the March number by Dr. Ayres on the

Conservative Treatment of Strabismus Convergens.

After briefly reviewing the history of tenotomy of the internal rectus as proposed by Stromeyer in 1838 and first successfully executed by Dieffenbach in 1839, Dr. Ayres refers to Donders and his great work on the "Anomalies of Refraction and Accommodation of the Eye." In it Donders states that "Strabismus Convergens almost always depends upon hypermetropia, and in discussing the origin of strabismus says that it is promoted by circumstances which render convergences easier, and mentions a peculiar structure or innervation of the muscle. The former cause was better known to him than the latter, and it is possible that he attributed too much to it, as the latest investigations tend to show that the innervation of the muscles is a very important factor." In support of this statement the author quotes Noyes, Stellwag, Grut and others. He next discusses the treatment of a case of "Convergent Strabismus beginning in early life from the second to the fifth year" by correction of the ametropia. He concludes thus: "In my judgment, except in very high degrees of squint, it is better for the child to wear the correcting lenses for a period of from one to four years before a tenotomy is made. This may seem very conservative, but I think that *final* results will bear me out in this position. The primary results of many skillfully made tenotomies are very satisfactory for a period of five years or even longer. But examine these cases later on and what do you find? A moderate and even a pronounced divergence. Can we avoid this result? Stellwag speaks of persons who outgrow strabismus, and every oculist has seen them. Does this not prove that there is a want of muscular balance which has a tendency to correct itself as the child develops into manhood or womanhood? This is the factor which tends to bring about the bad results which we used to see so frequently some years ago." But after trial of proper glasses for a reasonable period and in children from ten to fifteen years there remains a quota of cases requiring operation, in speaking of which the writer says: "I feel quite safe in asserting that the profession has belittled the importance of strabismus operations. It requires much skill and judgment to do them successfully, and many important points have to be considered before determining the propriety of the operation."

A Case of Gumma of the Sclerotic

is reported by Dr. Adolf Alt. It occured in a married woman, thirty five years old, and manifested itself as a small swelling, situated near the corneal margin up and inwards. About two weeks after she was first seen she had a swelling on the pre-auricular glands and sore throat, and finally a papulous syphilide made its appearance all over her body. Mercury was given internally, but no local application which he used seemed of any value in treatment of the scleral growth until he made inspergations of calomel under which "the tumor shrank rapidly."

THE DUBLIN JOURNAL OF MEDICAL SCIENCE

First place is given in the March number to Dr. Stoker's paper.

On the Operative Treatment of Trifacial Neuralgia.

Although the points spoken of are purely surgical, they will, in view of the frequent failure of medical treatment in neuralgia, recommend themselves to physicians no less than to surgeons. The suffering produced by some forms of trifacial neuralgia are so great, the malady is so common, and generally so intractable, that any contribution to its literature will be welcome alike to physicians and surgeons.

The doctor discusses quite fully four meth-

ods of treatment—neurotomy, neurectomy, stretching, and avulsion. The following summary of the paper may thus be briefly stated:

1. That in cases of trifacial neuralgia demanding operative treatment neurotomy is not usually a satisfactory or efficient operation.

2. That in purely sensory nerves stretching is at best but a temporary expedient, and either should not be undertaken, or having once performed and followed by a return of pain, should not be repeated.

3. That the reasonable treatment in trifacial neuralgia of an extreme character is neurectomy, and that while the operation on divisions of the 5th nerve external to the cranial cavity may be regarded as an established procedure, the ultimate operation of removing the Gasserian ganglion must still be considered as on its trial.

4. That avulsion should only be practiced as a part of an open operation, and that, as originally proposed by Professor Thiersch, it should be regarded as a blindfold and unscientific proceeding, to be undertaken only when an open operation is for sufficient reasons impossible or inexpedient.

Movable Kidney

Is the subject of Dr. Kendal Frank's paper which is carefully prepared and will be found very instructive. He takes Newman's classification of displacements of the kidney as the most convenient division for study, dividing them into three classes:

1. Simple displacement, without mobility of the kidney.

2. "Movable kidney," where the organ is perceptibly mobile behind the peritoneum.

3. "Floating kidney," where the peritoneum forms a mesonephron which attaches the kidney loosely to the spine.

Four methods have been employed for fixing the kidney in the loin.

M'Cosh thus summarizes them:—

1. The sutures may be passed through the adipose capsule alone.

2. They may be passed through the fibrous capsule of the kidney itself.

3. They may be passed through the parenchyma of the kidney.

4. The fibrous capsule may be partially stripped off the kidney in order to obtain a surface of renal tissue, by means of which the adhesions, it is believed, would be firmer. The sutures are then passed through the parenchyma and capsule, just inside the border of the raw surface. This is the method recommended by Jordan Lloyd.

Of these various methods it would appear that the best results are obtained when the parenchyma of the kidney is included in the suture, or when the capsule is partially stripped off.

Of the material for suture, catgut has been practically discarded on account of its becoming absorbed before the adhesions have become sufficiently strong to retain the kidney *in situ*. Kangaroo tendon has been proved reliable in the hands of Gould and Morris. Aseptic boiled silk has been used by Keen in his cases, and "it has answered admirably."

The wound in the loin is generally healed in eight to ten days; but it is advisable to keep the patient in bed in the horizontal position for a much longer period—about six or seven weeks—so as to afford time for the adhensions to become firm.

By these means a complete cure can be obtained, and the kidney be firmly secured into its normal position.

Three other papers, "The Influence of Public Cleansing on the Mortality of Towns," by Dr. Finn; "The Treatment of Pulmonary Consumption in Special Hospitals and Dispensaries," by Dr. Denham. "Some Recent Clinical Experiences," by Dr. Moore completes this issue.

SELECTED FORMULÆ.

Tertiary Syphilis.

Dr. Jos. Jones speaks highly of the following:

℞

Hydrarg. biniod.,	gr. iv.
Kal. iodid.,	ʒj.
Tr. iodin.,	ʒj.
Syr. iodid. ferr.,	ʒj.
Aquæ,	ʒiij.

M.

Sig. One drachm in water three times a day after meals.

—*Med. Bull.*

The taste of turpentine is said to be thoroughly disguised in the following combination:

℞

Oil of turpentine	2 fl. drs.
Glycerine	1 fl. oz.
Mucilage acacia	½ fl. oz.
Peppermint water, to make	8 fl. oz.

—*Pharm. Era.*

Constitutional Syphilis.

A mixture often ordered by Dr. Keyes is thus composed

℞

Potass. iodid.,	ʒij.
Ammonii carbonatis,	ʒss.
Tr. cinchonæ comp.,	ʒiv.
Syr. aurantii cort,	ʒjss.
Glycerinae,	ʒj.

M.

Sig. A teaspoonful, well diluted, after each meal.

—*Ther. Gazette*

Protracted Croup.

Davis.

℞

Potassium iodide	2½ drachms.
Tincture bloodroot	4 drachms.
Syrup squills compound	1½ ounces.
Camphorated tinct. opium	2 ounces.

Teaspoonful every four hours.

—*Phar. Era*

Habitual Abortion.

In habitual abortion, not due to syphilis, Negri recommends

℞ Mist. asafetida,..... ℥viij.

Sig. A tablespoonful several times daily.

—*Lancet-Clinic.*

Collodion for Gouty Joints.

℞ Morphinae acetatis..... gr. xx.
Acidi salicylici..... ʒij.
Ætheris.
Colodii flexilis,..... aa ℥vij.
Misce.

To be applied to the painful joint.

—*Ex.*

Secondary Syphilis.

In the secondary stage Ohmann-Dumesnil prescribes the following;

℞ Hydrargi bichloridi,..... gr. iv.
Ammonii muriat.,..... gr. viij.
Tinct. Cinchon. co.,..... ʒj.
Syr. sarsaparillæ co.,
Aquæ destillat.,..... aa ʒjss.

M.
Sig. Teaspoonful in water after each meal.

Uremic Vomiting.

Lecorche and Talamon use the following:

℞ Acid lactic..... mxv-xxx.
Syrup menthae pip..... ʒj.
Aquae destillat..... ʒiij.

M.

—*N. E. Med. Mo.*

Hiccough.

(In obstinate cases with extreme debibity).

℞ Hydrargyri chloridi mitis..... gr. j
Sacchari lactis..... ʒss.
Misce et. fiant chartulae No..... xij.

Sig. Take one powder every hour.

—*Dr. Gerhard.*

Chancroids.

For the cure of chancroids Dr. Adinell Hewson, of Philadelphia, advises this treatment: The penis to be washed with hot water and the following lotion applied locally:

℞ Hydrarg. chloridi mitis..... 2 drachms.
Liquor calcis..... 3 ounces.
Listerine..... 1 ounce.

Mix.

A Valuable Counter-Irritant in Diseases of the Chest.

℞ Aceti cantharides..... ʒij.
Spiritum camphorae..... ad ʒi.
Misce et fiat linimentum.

Apply to the chest at bedtime until redness is produced.

—*Practitioner.*

General Nervousness and Depression of Spirits.

The following is given by Dr. Emmet:

℞ Strychniae sulph..... gr. j
Quiniae sulph..... ʒss
Ferri pyrophosphat..... ʒij.
Spiriti chloroformi..... ʒiij.
Glycerinae..... qs. ʒiv.

M. Sig. One teaspoonful in wine glass of water four times a day.

Hooping Cough.

℞ Acidi nitrici diluti..... ʒxij.
Syrupi simplicis..... ʒiii ss.
Aquae destillatae..... ʒi.

M. Sig. Take a teaspoonful every three hours.

—*Dr. Hazard.*

For Disguising the Taste of Cod-liver Oil.

℞ Oleum gaultheriae
Oleum sassafras..... aa 4 parts.
Oleum aurantii flores..... 2 parts.

S. One drop to the ounce of oil.

—*Gazetta degli Aspitali.*

Scabies and Head Lice.

Prof. Tilbury Fox uses the following lotion:

℞ Hydrargyri chloridi corrosivi. gr. iv.
Alcoholis..... ʒvi.
Ammonii chloridi..... ʒss.
Aquae Rosae, q. s. ad..... ʒvj.

M. Sig. Apply once daily

Asthma.

℞ Potasiii iodidi..... ʒiij.
Extracti belladonnae fluidi..... ʒi.
Extracti lobeliae fluidi..... ʒij.
Extracti grindeliae fluidi..... ʒss.
Glycerinae.....
Aquae destillatae ãã..... ʒjss.

M. Sig. Take a tablespoonful every two, three, or four hours, as necessary.

—*Bartholow.*

Or this:

℞ Chloral hydratis..... ʒvj.
Syrupi tolutani..... ʒi.
Aquae fœniculi q. s. ad..... ʒij

M. Sig. Dose, a teaspoonful every half hour or hour, until relieved.

—*Weir Mitchell.*

Anæmia and Chlorosis.

Prof. Goodell recommends:

℞ Tincturae ferri chloridi..... ʒij ss.
Acidi phosphorici diluti..... ʒiij ss
Syrupi acidi citratis q. s. ad..... ʒiv.

M. Sig. Take a dessertspoonful in water three times a day.

Scarlet Fever.

Dr. Wilson has employed chloral throughout the entire attack with asserted good results in the following manner: so soon as the patient is suspected or known to be developing scarlatina, a laxative dose of calomel, proportionate to the age and general condition is administered. Shortly thereafter chloral is given in moderate doses, at intervals of two or three hours, or longer, throughout the attack. The dose varies with the age of the child; the frequency of its administration depends largely upon its effect. To infants of two or three years a dose of from 1 to 2 grains may be given, the dosage being gradually increased with older children; that for adolescents reaching 5 grains. The tranquillizing and sleep-producing effects of the drug are, in most instances, promptly realized, the patient falling into a condition of quietude instead of the restlessness and jactitation which are so distressing in the well-developed disease.—*Hare's Therapeutics.*

PERISCOPE.

MEDICINE.

Tetany in Children.

Loos has written an article on tetany in children, in which he gives laryngismus stridulus as the most important symptom in the disease; the following are in conclusion:

(1) Tetany is a frequent disease of early childhood, and has well-recognized symptoms.

(2) It begins relatively seldom with spontaneous tonic contractures of the extremities.

(3) Its presence is proven by the diagnostic sign of spasm of the larynx.

(4) It is not definitely settled whether spasm of the larynx alone is sufficient to establish a diagnosis of tetany.

(5) The symptoms of the disease are explained by the unusual excitability of the peripheral nerves and muscles.

(6) The excitability is caused by different irritants.

(7) The reason for this excitability is not known.

(8) The disease is more frequent in certain months of the year (spring).

(9) Tetany has no causal relation to rachitis.

SURGERY.

The Symptoms of Hip Joint Diseases.

Dr. A. M. Phelps concludes that the important early symptoms of hip joint diseases occur in the following order:

1. Limiting of motion. 2. Deformity with apparent lengthening or real shortening. 3. Limp. 4. Atrophy (in bone disease). 5. Pain in knee (with absence of knee joint disease). 6. Pain on joint pressure. 7. Night cries in absence of other joint disease. 8. Flattening of buttock and change in gluteal fold. 9. Heat. 10. Swelling.—*New Eng. Med. Mon.*

The Nasal Douche.

Dr. L. A. Dessar says the following rules should be observed in the use of all nasal douches:

1. The handkerchief should not be used for at least ten minutes after douching, inasmuch as in blowing the nose, any fluid remaining in the nasal passages may by a Valsalve action be forced into the Eustachian tube.

2. After douching it is advisable for the patient to remain indoors, so as to avoid exposure to the cold air.

3. During the proceeding the patient should not be disturbed or excited, as this may give rise to an involuntary attack of sneezing, coughing, or swallowing, and thus render it possible for fluids to enter the middle ear.

4. Before beginning the douching a careful examination should be made to see whether both nostrils are free. If one of them is found to be obstructed the douche should be used on the affected side.

5. Plain water should never be employed for douching, as it loosens the nasal epithelium. The addition of a small amount of sodium chloride prevents this action.

6. Concentrated solutions should never be used as a douche.

7. It is not advisabled to douche the nose more than three times daily. As a rule, its application morning and evening is sufficient.

8. The quantity of fluid introduced should not exceed ten ounces, the average amount varying from five to ten ounces; *i. e.*, from one to two douche cupfuls for each nostril.

9. The fluid should always be luke-warm. —*Inter. Jour. Surg.*

A Statistical Study of the Mortality from Anæsthetics.

Gurlt has continued for another year his collection of statistics for the purpose of studying the relative danger in the use of chloroform, ether, and other anæsthetics, and reported at the last meeting of the German Society of Surgeons on a material of 109,230 cases. There were 94,123 cases of anæsthesia by chloroform, 8,431 by ether, 2,891 by a mixture containing both, and a few with other drugs. With chloroform there was one death in every 2,614 cases, and with ether one in 7,431, while there was also one death in the few with the mixture.—*Centra fur chir.*

NEWS AND MISCELLANY.

The American Association of Obstetricians and Gynecologists will hold its sixth annual meeting at the Russell House, Detroit, Mich., on Thursday, Friday and Saturday, June 1st, 2nd and 3rd, 1893, under the presidency of Dr. Lewis S. McMurtry, of Louisville.

The following is the preliminary programme as far as titles are announced:

1. The President's Address, "The Present Position of Pelvic Surgery," by Dr. L. S. McMurtry, Louisville.
2. "Abdominal Fixation," by Dr. Florian Krug, New York.
3. "Endoscopic Tubes for Direct Examination of the Interior of the Uterus and Bladder," by Dr. Robert T. Morris, New York.
4. "Placenta Previa," by Dr. William H. Wenning, Cincinnati.
5. "What are the Indications for Abdominal Section in Intra-Pelvic Hemorrhage?" by Dr. M. Rosenwasser, Cleveland.
6. "Treatment of Metritis," by Dr. E. Pietranera, Cordova, A. R.
7. "A Plea for better Surgery in the Closure of the Abdominal Incision," by Dr. H. W. Longyear, Detroit.

8. "Remarks on the Treatment after Abdominal Sections," by Dr. C. C. Frederick, Buffalo.
9. "The Management of the Abdominal Incision," by Dr. Charles A. L. Reed, Cincinnati.
10. "Dilatation of the Cervix for Dysmenorrhea," by Dr. E. M. Pond, Rutland.
11. "Intra-Uterine Pregnancy; With Report of Cases," by Dr. George S. Peck, Youngstown.
12. "A Contribution to the Study of Ectopic Gestation," by Dr. E. Arnold Praeger, Nanaimo.
13. "A Few Practical Notes on the Establishment of Anastomosis between the Gall-Bladder and Intestine for Obstruction of the Common Duct with the Relation of a Case of Obstruction of the Common Duct by Small growth," by Dr. James F. W. Ross, Toronto.
14. "Vaginal Hysterectomy for Malignant Disease," by Dr. Rufus B. Hall, Cincinnati.
15. "The Care of Pregnant Women," by Dr. John Milton Duff, Pittsburg.
16. "A Contribution to the Pathology of Surgical Disease of the Gall-Bladder," by Dr. Walter P. Manton, Detroit.
17. "The Legal Questions in Gynecological Operations on the Insane,,' by Dr. Walter P. Manton, Detroit.
18. "Pelvic Abscess," by Dr. I. S. Stone, Washington.
19. "Central Rupture of the Perineum; Its Causation and Prevention," by Dr. John C. Sexton, Rushville.
20. "A Case of Myomectomy with Extra-Peritoneal Treatment of the Pedicle, followed by Pregnancy and Complicated by Hemorrhages through the Abdominal Cicatrix," by Dr. X. O. Werder, Pittsburg.
21. "Anatomy and Surgical Importance of the Peri-Renal Cellulo-Adipose Tissue," by Dr. L. H. Dunning, Indianopolis.
22. "Report of Cases from Practice with Remarks on the Same'" by Dr. A. Vander Veer, Albany.
23. "Further Observation on the Relation of Pelvic Disease and Psychical Disturbances in Women," by Dr. George H. Rohe, Catonsville.

A cordial invitation is extended to the members of the medical profession interested in the work of the Association to attend its several sessions.

By order of the Executive Council.

WILLIAM WARREN POTTER, Secretary.

ARMY AND NAVY.

U. S. ARMY, FROM APRIL 16, 1893, TO APRIL 22, 1893.

Major Henry M. Cronkhite, Surgeon U. S. Army, will proceed to Fort Wadsworth, N. Y. H. and report to the post commander for temporary duty.

U. S. ARMY, FROM APRIL 23, 1893, TO APRIL 29, 1893.

The leave of absence granted Lieutenant Colonel Charles C. Byrne, Deputy Surgeon General, U. S. Army, is hereby extended one month.

Captain Wm. O. Owen, Jr., assistant surgeon, is relieved from duty at Jefferson Barracks, Mo. and ordered to Fort Bayard, N.M. for duty.

Captain Edward T. Comegys, assistant surgeon, is relieved from duty at Fort Bayard, N.M., and ordered to Fort Wadsworth, N. Y. for duty.

Captain A. S. Polhemus, assistant surgeon, is relieved from duty at Fort Monroe, Va. and ordered to report at Fort Douglas, Utah, for duty.

Captain Wm. P. Kendall, assistant surgeon, is relieved from duty at Fort Douglas, Utah, and ordered to Willet's Point, N. Y. for duty.

Captain Wm. F. Carter, assistant surgeon, is relieved from duty at Willets Point, N. Y. and ordered to Fort Sill, O. Ty. for duty.

Captain B. D. Taylor, assistant surgeon, is relieved from duty at Fort Sill, O. Ty. and ordered to Fort Bliss, Texas.

Captain Wm. B. Banister, assistant surgeon, is relieved from duty at Washington Barracks, D. C. and ordered to Fort McIntosh, Texas, for duty.

Captain George McCreery, assistant surgeon, is relieved from duty and ordered to Fort Sidney, Nebraska, for duty.

Captain Louis S. Tesson, assistant surgeon, is relieved from duty at Fort Sidney, Nebraska and ordered to Jefferson Barracks, Mo. for duty.

Leave of absence for one month on surgeon's certificate of disability, with permission to leave the limits of the department to take effect when Assistant Surgeon Ware shall have returned to Fort Supply, I. T. is granted Captain Marlborough C. Wyeth, Assistant Surgeon, U. S. A.

Leave of absence for twenty days, to take effect after May 1st, 1893, is hereby granted to Major Ezra Woodruff, Surgeon U. S. Army.

First Lieut. Ogden Rafferty, Assistant Surgeon, to be Assistant Surgeon, with the rank of Captain, from March 26, 1893, after five years' service, in conformity with the act of June 23, 1874.

First Lieut. Francis A. Winter, Assistant Surgeon, U. S. Army, is relieved from duty at Fort Wingate, N. M. and will report in person to the senior commissioner of the International Boundary Survey Commission at Yuma, A. T. for duty, relieving First Lieut. Harlan E. McVay, Asst. Surgeon.

First Lieut. McVay on being relieved by First Lieut. Winter, will report in person to the commanding officer San Carlos, A. T. for duty at that station relieving Captain Paul Shillock, Assistant Surgeon.

Captain Shillock, on being relieved, by First Lieut. McVay, will report in person to the commanding officer, Fort Wingate, N. M. for duty at that post.

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ORIGINAL ARTICLES.

JOSEPH PRICE, M.D., Preston Retreat.
Gynecology and the General Practitioner. . . . 717

COMMUNICATIONS.

THOMAS S. K. MORTON, M.D.
Metatarsalgia (Morton's Painful Affection of the Foot), with an Account of Six Cases Cured by Operation. 723

G. V. HALL, M.D., LL.B., Wheaton, Texas.
Strychnine versus Ergot in Obstetric Practice . . 732

SOCIETY REPORTS.

Surgical Society of Louisville. 735

EDITORIAL

Penetrating Gunshot Wounds of the Abdomen. . . 743

TRANSLATIONS 744
ABSTRACTS 747
CURRENT LITERATURE REVIEWED 751
SELECTED FORMULÆ. 752
PERISCOPE
THERAPEUTICS 754
MEDICINE 754
SURGERY 755
GYNECOLOGY 755
NEWS AND MISCELLANY 756
ARMY AND NAVY 756

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THE
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ORIGINAL ARTICLES.

GYNECOLOGY AND THE GENERAL PRACTITIONER.*

JOSEPH PRICE, M. D., Preston Retreat.

While, as physicians and surgeons, we cannot escape a painful and mortifying sense of many failures, it is gratifying, encouraging, and assuring to have afforded us by the most casual retrospect so many evidences of progress. It is a matter of cheerful congratulation that we live in a period of intense professional energy, activity and research. The advances in medical and surgical science in the past quarter of a century have greatly exceeded those of any corresponding period of the past.

When we come to look for the sources of our advances—of our better knowledge—we must credit largely the use of our greatly improved clinical opportunities, the more generally recognized primary importance of thorough preparation for the work we propose and attempt to do, and the elevation of the standard of medical and surgical education. And there is more and better where all we have came from. So far as books have served us as educational manuals, have been clear, logical, definite and specific in aim, they have served us a valuable purpose. They are too many, and many of them are too crowded with errors and exploded theories, are too confusing and misguiding to entitle them to a place in the alcoves of our private or public libraries. Many of them work mischief, they "are only commentary and elucidation, echoes and weakners of the few great voices of time." Since our duties are exacting, our time all too short to waste over the productions of the pens of the mediocrites, we should with keenest scrutiny and choice, select from the most select of the masters, those whose genius have built up our science, and from those of our own period who keep abreast with every modern advance; those who would rather do than write, who simply give the lessons their experience affirm. The diagnosis of the books in many instances does not fit our case. Further our education should not be limited to our heads. Napoleon said, "my hand is immediately connected with my head." The fingers and the eyes are the instruments of instruments—in them there must be cultivation and adaptation to our surgical work; there must be no mistake or wavering of courage in their second to our surgical intelligence. Our mechanical aids are many and valuable—but for success there must be sound surgical sense at the wheels.

As close, ready and trained allies of our knowledge of anatomical and pathological conditions, of the importance, functions and relations of structures, there must be apt and dexterious fingers—fingers trained to ease and certainty in their work—sufficiently sensative to distinguish the difference between the edge of a razor and that of a meat axe, and acute eyes that draw *hair lines*. The mental map of the work to be done must have in its lines the finnesse of an artistic touch. All this comes from many experiences—of long

* Read before the Lancaster Co. Penna., Medical Society, May 3rd, 1893.

and patient training. We do not get this discipline from the books, nor is it attained by little study, limited clinical research or few experiences. It is not the product of months but of years—not of two years or four years—but of many.

There is a point in the following little anecdote: Hyde, Earl of Rochester, asked Lord Kæper Guilford, "Do you not think I could understand any business in England in a month?" "Yes, my Lord," replied the other, "but I think you would understand it better in two months."

Medical and surgical sense is obtained, as other kind of sense is obtained, by work.

In matter of work there is no class of men in any department of human affairs whose time and energies are more severely taxed than those of the active practitioner of medicine. Per-virtue his calling he is at the bidding of the community in which he pursues his profession. Superiority of skill and knowledge only augments his labors, adds to his duties and responsibilities. He is the first appealed to, the first called in cases of disease or accident. These facts urge the importance of his thorough equipment. There are no resources in the science of medicine and surgery to which the needs of his field do not appeal. He is summoned to deal with all forms of disease and accident. He must know something of many subjects; though it has been said by an eminent American scholar—that, "he is a learned man who understands one subject, and he is a very learned man who understands two subjects." The general practitioner is the all-round consultant, and in the very nature of things will continue to be. His school, the bedside, is the greatest and best of all. He determines the therapeutical and clinical value of remedies, knows and adhers to those which have given the best results. The experimentor or so-called scientist tells us just how our remedies act—what organs they affect; he tells it by putting a hot iron in a cat's ear and making it spin around on the other ear; how the heat centers are influenced by placing a clinical thermometer in a goat's rectum, or a pigeon or rabbit in a hot oven, followed by a cold bath.

It is in the gynecological field that the general practitioner encounters many grave difficulties, and has demonstrated the urgent need of his fitting himself for the early recognition of those troubles requiring surgical interference—those in the dealing with which there is need for the prompt service of the gynecological specialist. I have no desire to give to gynecology pre-eminence over other specialties, but would press upon your attention only those honest claims sustained by the happy results of modern experience, those for which many suffering women have need to be grateful.

Gynecology has taken its position, and it is not a secondary one in medicine, using the term medicine in a generic sense. The position taken and maintained by this branch of our healing and life saving service has not been attained or maintained without the encountering and overcoming of many bitter antagonisms. The vantage ground gained is such that it now holds, and always will hold its own; its importance as a specialty grows in both professional and popular recognition, and this recognition will continue to grow as we break away from antiquated and exploded errors.

Our gynecological procedures have passed without the field of mere adventure and experiment into one with many certainties. The general practitioner has no reason to complain of gynecological specialism—there can be no divergence or severance of interests, they will continue mutual in the study and treatment of the diseases of women; they serve each other as co-workers in saving the lives and mitigating the suffering of women.

There is a growing tendency to specialize into gynecological surgeons and obstetric physicians. There is a danger of this tendency carrying us too far. While it may not be essential or possible to be specialists in both branches, we cannot safely sever their interests. In elevating the importance of one we do not discount the importance of the other. Obstetrics has advanced to a point of an accurate science, for the educated and experienced obstetrician it has its certainties, its procedures of undisputed wisdom. The gynecologist cannot be the best as such—reach the best in uniform results—without a knowledge of obstetrical art and science.

The distinguished French gynecologist, M. Auvord, with aptness says, "obstetrics is practically to gynecology what physi-

ology is to medicine, they are closely connected and one cannot progress without the other."

The successful specialist must have several years of active general practice. It is in it he gains his first and best lessons in practical obstetrics and in the diseases peculiar to women; it is in this general practice he first encounters, the one among many gynecological difficulties, that of rational diagnosis. The accurate diagnosis of obscure and complicated conditions is in many cases very difficult, and is the source of great mental perplexity and anxiety; in fact in many cases it is impossible without surgery—even by the specialists. Unfortunately all of us have been taught the use of a variety of instruments we could wisely dispense with, for instance the sound, tubular and bivalve specula; while they are not needed in the hands of the trained and experienced, in the hands of the unskilled and inexperienced they are dangerous and should not be found. Careful training in diagnosis with the fingers, first as to normal conditions; second deviations from the normal, objective symptoms—these are easily practiced methods. Careful examination by exclusion will rarely lead us into error. Sometimes it is difficult for us to say precisely what the trouble is, but we can commonly reduce it to one of two things. For instance an abscess of the ovary may simulate in subjective and objective signs a small suppurating dermoid—it is not important which it is, there is but one treatment for the two troubles.

Again the uterus is retroflexed and adherent with an occluded and distended tube on one side acutely inflamed and strongly adherent, there may be a history of delayed or absent period with agonizing pain. You cannot dismiss tubal pregnancy nor can you exclude suppurating tube and ovary, notwithstanding symptoms strongly favor the latter. Here again the treatment is precisely the same for a serious mischief that must be removed.

Again pelvic growths and inflammatory troubles are commonly missed. You may have an extra-uterine pregnancy on the left side and a dropsical tube on the right side, or a small cystoma with occluded tube on the right side, a pus tube and an ovarian abscess on the left, and omentum and intestine strongly adherent; above from sigmoid to vermiform appendix.

These troubles are so common and so mixed in nature that it is perfect folly to boast about refinement in diagnosis. If you claim a pus tube on the left side you must also recognize the left ovarian abscess if it exists or double pus tubes with an ovarian abscess on the right—or keep quiet and simply say you have diseased tubes and ovaries on one or both sides with adhesions.

We frequently find slight or extensive lacerations of cervix, cervix eroded, lips everted and studded with small cysts. In many of these cases the uterus is either retroverted or retroflexed, the patient should be put to bed, the cervix freely punctured and the uterus placed in its normal position. If the laceration extends to the vaginal vault it should be well closed. If there is relaxation of the vaginal outlet with cysto and recto vaginocele the pelvic floor should be restored by Emmet's inside perineal operation. Injuries and diseases of the urethra should be studded and treated with care.

Complications antedating operation should always be released, or they remain sources of post-operative danger and suffering.

The simple removal of a tumor without freeing an adherent omentum of bowel is imperfect surgery. It is the incomplete, imperfect and abandoned work from which so many women are suffering. Incomplete work is also a cause of early deaths. To illustrate, you remove a huge pus tube or ovarian abscess, universally adherent, and you fail to recognize a coil of adherent ileum. She dies the third or fourth day with bowel obstruction. The fact that an operation has not killed is not the best evidence of successful surgery—the sequelæ must be considered, is the determining factor.

There should be the diagnostic ability to recognize the precise nature of the trouble at its very inception, before there are alarming symptoms of advanced disease. In early parturition, all accidents incident to it should be carefully and completely repaired thus favoring speedy and satisfactory convalescence and prevent many serious post-puerperal complications.

Not a few men yet discuss the question of the removal of the appendages with something of bitterness and more of ignor-

ance. Undoubtedly a great number of operations are done for the fee, or they are done because the operator has nothing else to do. He has chosen his specialty and must stick to it. Unfortunately these men carry the matter of removal too far. They sometimes counsel the removal of the appendages for vague nervous symptoms, without a subjective symptom to warrant this counsel. Again they will protest vehemently against the removal of disorganized structures, disorganized tubes and ovaries, wholly worthless and destroying the patient's life. This is either ignorance or it is something worse than ignorance. Some of them carry into the work a professional conscience as coarse in fibre as that of an old rag carpet. The rights and duties of maternity are not to be ignored. Where there is possible chance the cherished right of motherhood should be sacredly guarded. Again we have patients who demand a certain operation, ignoring the possibility of matrimony, this demand should not be yielded to.

Women should not be permitted to go on suffering where symptomatic treatment has been tried and failed—there should be resort to radical measures. The physician should have precise knowledge of the nature of the trouble and should not go on blindly treating something he imagins to exist. Whatever the treatment, whether medical or surgical, all possible issues should be anticipated.

Where the treatment must be surgical the patient and family should be frankly and fully informed of the nature of the trouble, and as nearly as can be anticipated the probable or possible results. This should be done in such a manner as to avoid unnecessary alarm.

I cannot say anything better in this connection, certainly nothing with the weight of better authority, than that said in the report of his first case of successful peritoneal section by one you all hold in close and honored memory, John L. Atlee. After describing the conditions of his patient, he says: "It was now my duty to state to her with candour and frankness, her real situation. If left to itself, her disease must prove inevitably, and from her recent symptoms perhaps rapidly fatal. The tumor on the right side was obviously a compound ovarian tumor. Were it like that on the left side—apparently a simple cyst—the accidental or designed rupture of it, were there but one, might terminate favorably, but even of this event there was only a remote possibility, and but few favorable cases are recorded. The right tumor, however, was not of this character, and but one remedy, that of extirpation, could prove effectual. I frankly informed her of the magnitude, and of all the dangers of the operation; concealing nothing as to its immediate or remote consequences; to her immediate friends and relatives, who hold a highly respectable station in society, a similar statement was made; and after ample time for deliberation and consultation with them, she determined upon having it performed.

It was not until my heroic patient made known to me this decision, that I felt in all its aspects the great responsibility resting upon me. I felt it my professional duty to inform her that an operation could be performed for relief—but it was one which met with but little countenance from the profession."

If such good conscience, great candour and courage as that displayed by Atlee, characterized the profession more generally, with less charlatanism, we would have fewer malicious legal prosecutions, less blackmailing, less pretext for many of those professional annoyances to which we are exposed, fewer refusals to pay for honest professional service.

We will pass in brief review some of the many difficulties which the general practitioner encounters in dealing with gynecological cases—from a number of these difficulties the gynecological specialist is not free. They have no special order of importance, they are all embarrassments to good and successful work.

There is nothing more sad or melancholy in our experiences than the repeated instances in which a commercial value is placed upon a human life. I will give in illustration a recent instance in my own experience.

A creature (I avoid the names man or gentleman to avoid misnomer) from a border state brought his wife to me. She was suffering from a tumor. She was emaciated, her face was all lined with the traces of her suffering, and without surgical interference and relief there was before her a life of misery, of incapacity for social or domestic duties. I advised im-

mediate operation, while conditions favored rapid and complete recovery.

The husband inquired what my fee would be. I fixed it very low, little more than covering the nursing and actual hospital expenses. He turned to his wife and said: "Mary, you can keep your tumor." I have had many kindred experiences in my practice and, doubtless, many of you have had them in yours. Where our professional duty is faithfully and conscientiously discharged we earn all we get. Where there is ability to pay it should be liberal. There is labor, responsibility, sacrifice, untold anxiety in our work,—there is no class or body of men on earth who do more charity, practice a broader and more practical philanthropy than our physicians and surgeons.

Again while emulation of the best is creditable to us, the envy and jealousies that sometimes characterize the conduct of members of our profession works far-reaching mischief. Where such motives control the influence for evil is not a feeble one.

Doctor A. and B. are called to a case, they recognize serious trouble and counsel well-directed and safe treatment—but heroic. C. and D. oppose their suggested treatment and are favored by the family, that the surgical interference suggested by A. and B. may be avoided. Often C. and D. know better or should know better—but if they give the same opinion the patient will go to A. and B.

She is left to suffer on; nothing new is done; the old treatment is continued. At last the patient in her desperation and despair demands that something be done—life has become intolerable. *It is too late.* Primarily the chances in favor of relief and prolonging life were ninety-nine in one hundred. Now they are reversed, in one hundred the chance is *one. To that one chance she is entitled.* No matter if in giving that one chance there should be one added to the statistics of the mortality of the surgeon—and there should be men mean enough to advertise it. Such experiences are exceedingly common. These conflicts of opinion, more frequently the outcome of envy or jealousy than of intelligent, sober and deliberate judgment, arise in relation to every disease, in relation to ovarian tumors, and the various diseases of the uterus and its appendages, which call for absolute operative interference; the class of cases which medicine can not benefit, the knife the *only* remedy.

Only very lately I saw in consultation two lovely women, women typical in every way of our best American womanhood, both wives of physicians, both had been permitted to suffer for a long period through the disagreeing, the timidity and ignorance of physicians; they received a great variety of treatment for a great variety of troubles—they lingered along in horrible suffering—relieved only by death. The post mortems revealed that tubes and ovaries, bladder, bowel, in fact the whole pelvic contents were involved in a basin of pus. These experiences have been repeated in several cases I have seen in the past few months, cases in which all the conditions were such that I urged operation. Adverse counsel prevailed, much valuable time lost, all the more dangerous symptoms becoming greatly aggravated, the surgery rendered more difficult and perilous. Two of these cases are now in my private hospital, pitiable wrecks, alarmingly emaciated, feeble and exhausted. Operation in these cases was advised more than five months since, but family physicians and their consultants held out the hopes of palliative treatment and exaggerated the sufferings and risks of surgical treatment. I urged these patients to return to their physicians, present my compliments, and insist that they take care of them, that their deplorable condition was due to their counsel and treatment, and that by the delay, for which they were responsible, the complications and risks of operation had been greatly increased and recovery far removed from reasonable certainty. The honesty and methods of such men would give them high rank in our politics.

There is no question that confronts the general practitioner with so much perplexity in it as that of deciding the propriety or necessity of an operation. This fact presses the importance of familiarizing himself with the work and methods of abdominal surgeons. He should have the ability to diagnose conditions requiring surgery for their removal. Where doubt exists an experienced specialist should be called in. Unfortunately in so many cases of abdominal and pelvic trouble the conditions become grave before the specialist is consulted; they go to him only after symptoms become desperate. As to

who should do abdominal surgery, the answer should be emphatic, only those who have had special training, years of clinical study and practical experience, those who by predilection have given the subject long and masterly study. There is too much reckless dealing with the peritoneal cavity. Many disasters are due to overzeal, to surgical ambition, to essaying into fields for which they have received no careful preliminary education, none of the training which comes only of experience, long, patient and hard clinical research and observation. Very often the failure of the general practitioner in the matter of diagnosis is not so much from lack of knowledge as because gynecological examination is objected to by the patients. This fact prevails more strongly in the country and country town than in the city. In not a few cases men's practice has been driven from them by the accusation that they were addicted to gynecological examinations. The more close social intimacy of the country physician with his patients than as a rule are those of the city, may somewhat explain this over-sensitiveness to examination. And the more intimate association of women among themselves has much to do with it. So profound is our reverence for feminine modesty that we will only refer to its practice under such circumstances as a mistaken modesty, often leading to very painful and alarming results. Neither do men like to examine women with whom they are on terms of social intimacy. Much will be accomplished when an unreasoning aversion to vaginal examinations is broken down. There should be no fuss about it. Where the necessity for vaginal examination is clearly indicated—it should be proceeded with not as something extraordinary, but as a matter of refined delicacy, yet of professional duty. The physician making such examinations should be one of highest honor, of clean life, clean conscience and clean hands. There should be reasonable certainty as to its necessity, and it should be conducted with a propriety of manner dictated by a high sense of appreciation of feminine delicacy. The woman finds pain enough in the consciousness that her trouble is such as to require such an examination.

In many forms of pelvic trouble the importance of careful and repeated examination cannot be too strongly urged. Again the careful preparation of patients is of vital importance.

The examination of a patient at her home should be anticipated by a laxative and her bladder should also be emptied just before examination. The examination should not be upon a low bed. The patient should be placed on a table or pulled well to the edge of a firm bed. The position of the uterus, size, consistency, outline and relation to surrounding parts should be carefully investigated. And it should be remembered that you cannot isolate conditions, there is always a relation to other conditions,—all displacements involve altered relations.

If an ocular examination is necessary, or local treatment indicated, the side position and Sim's speculum should always be used. Local treatment and tinkering of all kinds, surgical and intra-uterine, stretching, rupturing asunder the cervix, sewing it up, incising it fore and aft or latterly have been and are still practised with too great freedom. The loose and indiscriminate practice of many of these procedures has driven many women to heroic procedures to save their lives. Patients should not be permitted to go on suffering indefinitely where symptomatic treatment has been tried and failed—there should be resort to radical measures, and in all cases possible issues should be anticipated. The very ease of some minor operations tempts men without any special training in surgery to their reckless and inconsiderate performance, without thought of the possibilities of consequent mischief.

I removed disorganized tubes and ovaries from a woman who had been confined to her bed for six years, had been treated in four different states by thirty-four different doctors. She received every treatment known to the books, ancient and modern. She was a hopeless invalid, in fact such treatment and so much of it would invalid the toughest human specimen. When we consider what has been accomplished in abdominal surgery we are impresssd by a sense of the yet greater possibilities in the keeping of a near future. Our victories of to-day presage yet greater victories for our to-morrow. When we consider the long stretch of years between Ephraim McDowell of Virginia and Lawson Tait of Birmingham, England, and your own

Atlees we can appreciate the slow growth of much of the triumphant surgery of our period. Typical of all other progresses has been that of surgery. McDowell, in the first ovariotomy ever performed (December 1809) had without the door a sceptical, doubting, angry, vengeful crowd, awaiting the result of "butchering the woman," as they termed it. Mr. Tait in devising and perfecting the procedure had the courage to battle his own way through the stubborn lines of doubting, envious and jealous men until his methods and procedures became the accepted and practiced procedures in our abdominal surgery.

It is the work and voice of such noble, courageous and unselfish men as I have here named that make the history of the profession interesting and profitable reading. It is such men who, with no mean envies smouldering in their blood, look upon individual success as part of the common honor and glory of the profession and lend a willing hand and voice in promoting that fellowship which strengthens our efforts in battling with all forms of disease. Our debt to such men as our teachers, is beyond our reckoning. Largely all we know is of their teaching. None of us have grounds for boasting of our knowingness, when we contrast the little we know with the vastness of what we don't know. We have a great pride in our profession, find a great gladness in each new triumph, honor the individual victors for the new steps they contribute to our easier and more successful climbing.

COMMUNICATIONS.

METATARSALGIA (MORTON'S PAINFUL AFFECTION OF THE FOOT), WITH AN ACCOUNT OF SIX CASES CURED BY OPERATION.*

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The affection that has come to be best known as "Morton's Painful Affection of the Foot," or "Morton's Toe," was first described and a method of certain cure presented by Dr. Thomas G. Morton, of Philadelphia, in 1876, under title of "A Peculiar Painful Affection of the Fourth Metatarso-phalangeal Articulation."[1] In subsequent publications[2] he has confirmed his views relative to cause and treatment, and reported large numbers of cases.

The disease under consideration may be described as a painful affection of the plantar digital nerves, directly caused by pressure upon or pinching of them by certain portions of the metatarso-phalangeal articulations—especially the fourth.

The reason for the fourth toe being the almost invariable seat of origin of the train of painful and neurotic symptoms to be described is ascribed to anatomical causes by Morton in the following language:

"The occurrence of neuralgia may be understood by a referenee to the anatomy of the parts. The metatarso-phalangeal joints of the first, second, and third toes are found on almost a direct line with each other, while the head of the fourth metatarsal is from one-eighth to one-fourth of an inch behind the head of the third, and the head of the fifth is from three-eighths to half an inch behind the head of the fourth; the joint of the third, therefore, is slightly in advance of the joint of the fourth, and the joint of the fifth is considerably behind the joint of the fourth.

"The fifth metatarsal joint is so much posterior to the fourth that the base of first phalanx of the little toe is brought on a line with the head and neck of the fourth metatarsal, the head of the fifth metatarsal being opposed to the neck of the fourth.

On account of the character of the peculiar tarsal articulation, there is very slight lateral motion in the first three

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1 *American Journal Medical Sciences*, January, 1876.

2 Surgery in the Pennsylvania Hospital, 1880, p. 107. *PhiladelphiaMedical Times*, October 2, 1886.

metatarsal bones. The fourth has greater mobility, the fifth still more than the fourth. Lateral pressure brings the head of the fifth metatarsal and the phalanx of the little toe into direct contact with the *head and neck of the fourth metatarsal*, and to some extent the extremity of the fifth metatarsal rolls above and under the fourth metatarsal.

"The mechanism of the affection now becomes apparent when we consider the nerve-supply of the parts. The branches of the external plantar nerve are fully distributed to the little toe and to the outer side of the fourth; there are also numerous branches of this nerve deeply lodged in between these toes, and they are liable not only to be unduly compressed, but pinched by a sudden twist of the anterior part of the foot. Any foot-movement which may suddenly displace the toes, when confined in a shoe, may induce an attack of this neuralgia. In some cases no abnormality or other specific cause for the disease can be detected."

This explanation undoubtedly will account for the great majority of cases, and perhaps all could be ascribed to pinching of the nerves between the metacarpo-phalangeal articulation. Yet there have been reported a few cases where the transverse metatarsal ligament has appeared to be lax or ruptured, thus permitting the metatarsal heads to descend upon the nerves. Auguste Poullosson, of Lyons, in 1889,[3] after reporting a typical case, says that "the cause of the affection is evidently a certain laxity of the transverse metatarsal ligament, which permits partial infraction of the arch formed by the heads of the five metatarsal bones, one of the middle ones, probably the third, becoming dislocated downward and compressing the nerves running along each side of it against the heads of the neighboring bones."

L. G. Guthrie,[4] in writing of metatarsal neuralgia, states his belief that "under the influence of prolonged standing or walking in tight boots, the ligaments of one or more joints, metatarso-phalangeal only, become strained, slight sublaxation takes place, the nerves are stretched and pressed upon by the partially dislocated bones, and the characteristic pain is produced."

In reference to the supposed dislocations above mentioned, Morton says:

"The dislocation referred to is not a true dislocation, but is simply a twist of the toe, and a violent spasmodic condition of the muscles of the toe incident to the intense pain, simulating a dislocation, which, when the toe is compressed laterally and in its rolling between the third and fifth, suddenly presses upon and pinches the underlying plantar-nerve branch."

Edward F. Grün,[5] himself a sufferer from the affection, believes that the pain results from descent of the tarsal arch, which is accompanied by lengthening of the foot and spreading to the outer side, so that "where the weight comes on the member the foot spreads inordinately; the boot is not constructed to allow for so much spreading, and a frightful cramping pain is the result, causing the patient to remove the boot without regard to place or circumstances—often the most inconvenient."

E. H. Bradford[6] states that the results of treatment in these cases, as well as the symptoms and localization of the point of severest pain, make him agree with Morton, in believing the affection to be originated by pinching of the metatarsal nerve, rather than to flattening of the tarsal arch, as suggested by Poullosson. In none of his thirteen cases was any degree of flat-foot present.

In a large number of cases seen by me, in addition to those herein reported, it has not been possible to demonstrate any laxity of the metatarsal ligaments, and, while in a few the pain was referred to other of the metatarso-phalangeal joints than the fourth, yet upon careful manipulation it was always found that the pain was reflected from the fourth to the other joints. It must be conceded, of course, that laxity or rupture of the transverse ligament would predispose to injury of the nerves at the fourth joint by permitting greater motion of the overlapping bony points in that situation. However, while the exact etiology of the affection is of great scientific interest, clinically it is

3 *Lancet*, March 2, 1889, p. 346.

4 "On a Form of Painful Toe," *Lancet*, 1892, vol. i. p. 628.

5 *Lancet*, April, 6, 1889, p. 707.

6 "Metatarsal Neuralgia, or Morton's Affection of the Foot." *Boston Med. and Surg. Journal*, 1891, vol. ii. p. 52.

of small account, as excision of the fourth metatarso-phalangeal articulation, as originally proposed by Morton, or amputation of the fourth toe, including the corresponding metatarsal head, invariably has secured an absolute and permanent cure. No dissections of the diseased regions have yet been possible, nor have the nerves been in any case excised so that microscopical examination could be made. I have carefully examined a number of the joints that have been removed for the cure of the affection, and in no instance have been able to prove any anomaly or disease.

Metatarsalgia is, in its lesser degrees, a very common disease. Almost every one has suffered more or less, at times, from neuralgic twinges radiating from the joint in question. These mild cases occasionally develop into the more severe forms. In them occasional attacks of pain are often followed by periods of complete immunity.

Morton made extended inquiries among retail shoe dealers and found "that this peculiar condition had not only been frequently recognized by them, but that it is also considered to be quite common. Almost every intelligent shoe retailer has seen a number of persons to whom this disease has been a source of a frequent suffering, and who believe their malady to be beyond relief by medical art; indeed, it would seem that in some of the most severe of the cases it has been found impossible to obtain the serious consideration by their medical attendents."

So recently as 1891 Bradford [7] has written:

"It is somewhat singular that an affection that is not infrequent in these days of thorough investigation of all ailments, should have attracted but little attention, either in the researches of surgeons or of neurologists. The cases are so usually classed among the ill-defined hysterical or nervous affections, and not thoroughly investigated; or they are deemed to be gouty, as in the minds of many practitioners, are frequently all affections of the toes."

The disease has not been observed before adolescence. Women are certainly more predisposed than are men, and its occurrence in the former sex I should judge to be almost twice as frequent as in the latter. One foot is almost usually involved, especially in those cases apparently taking origin from an injury. But very frequently one foot is affected to an almost unbearable degree, while its fellow is but slighly involved. Neither right nor left foot appears to be most liable to involvement unless one or the other is constantly subjected to a motion, as in running certain sewing machines, looms, lathes, etc., while the other is not employed. In this case, as in one of my own, the pain developed in the foot so employed. When both feet become simultaneously affected the cause will often be found in ill-fitting or tight shoes. Middle life is the period at which the disease is most apt to develop or to become severe. The aged are by no means exempt, although in them more purely gouty or neuralgic forms are prone to occur, and persons at any age, so predisposed, appear to be much more liable to the affection—idiopathic or traumatic—than are others.

The influence of heredity is very marked. I know of several families in which a number of persons, mainly confined to the female sex, are similarly affected. It is interesting to note that in these instances some cases have arisen from twists or sprains of the foot, and others apparently idiopathically.

The exciting or immediate cause of metatarsalgia is usually excessive or unusual exercise of the feet while confined in new, tight, or ill-fitting shoes, as in walking over rough surfaces (mountain-climbing), dancing, playing lawn tennis, etc., or in changing from a firm-soled shoe to one that permits great motion of the metatarsal arch. When the heads of the metatarsal bones are rigidly held in contact by a tight shoe it is reasonable to believe that a very slight twist or wrench of the foot would bring great pressure to bear upon the sensitive branches of the digital nerves distributed upon and about them, and, particularly in those predisposed thereto, bring about a neuralgic and even neuritic condition. This once set up, and the nerves having become sensitive, swollen, or inflamed, ever so slight repetitions of the pressure or bruising are capable of originating the most agonizing suffering. Later, continuous or frequently recurring attacks of this pain, or actual ascent of neuritis, commence reflex contractions and other neurotic complications,

7 Loc. cit.

perhaps of the gravest type, as witness in Case I. of my series, where the patient had become bed-ridden and severely neurasthenic.

So far as relates to symptomatology, I shall depend upon quoting a few more or less typical cases from the literature of the subject and upon the histories of my own operative cases, but may here mention that I regard the *imperative necessity of removing the shoe*, regardless of surroundings, when a paroxysm comes on, as a pathognomonic symptom of the disease. It may also be said that no evidence of the disease can usually be felt or seen, except that the parts are often of a bluish tint and cold, from venous stasis, and have a tendency to profuse perspiration.

Case I.—Miss I. F. S., aged thirty-one years, teacher, was brought to me by her physician, Dr. George L. Romine, of Lambertville, N. J., in June, 1892.

The following history was elicited: Family history excellent; she had always enjoyed the best of health and strength until the present trouble commenced. In July, 1890, she played lawn tennis for the greater portion of a day, coming down heavily on the balls of the feet many times, after which she walked a short distance to her home, and felt greatly fatigued. After resting two hours she attempted to walk and experienced a "queer sensation" along the outside of the left foot, a feeling "as if something had given way about half-way between the toes and heel."

"In the evening I walked down town, but could scarcely return, for it was so hard to make my foot go. I felt as if retarded in some mysterious way. By the time I reached home a line of pain extended from the place above-mentioned all the way to my hip. Thinking I had sprained my foot, I applied the usual remedies. The next morning my foot felt rested, but during a short walk on the street the pain in my foot and limb returned.

"By this time the foot began to swell, particularly along the outside, and in a few days had a reddish appearance. After a night's rest the swelling disappeared, and I was able to use my foot, with intervals of rest, in ordinary walking about the house. Each day it gave out after less use, so at the end of five days I called in our family physician, Dr. Romine, of Lambertville."

It was presumed that a ligament or tendon had been ruptured, and fixation by bandages resorted to. On August 7 these dressings were removed.

"The foot and limb were helpless, and the whole side of the foot felt so indescribably bad that it made me faint. A starched dressing was then put on the foot and limb to the knee. For four or five days following I held my foot on a chair, but after that, during part of the day, on a pillow on the floor. Toward evening I had almost unbearable tingling in the foot, but this passed away on retiring. I never could rest my foot on the outside from the time of the accident without having that unbearable feeling in the foot, and at times the line of pain in the limb.

"At the end of four weeks the Doctor told me to stand with my feet even. Never shall I forget what I suffered that day. The limb had shortened so that the heel was about two inches from the floor, and in trying to stretch it down the bottom of the foot pained and tingled dreadfully. I was completely exhausted and deathly sick.

"Crutches were then ordered, and I commenced my hard work of learning to walk.

"My foot was so bad on the side, and a line of dreadful pain extended from about two inches from the fourth toe along the side of the foot and to the knee. After a time the pain in the limb seemed better, but the whole side of the foot felt unspeakably bad. The uncomfortable sensation did not seem confined to any particular place on the side, as it did at first.

"The 1st of October the physician advised my going to school in order to overcome my nervousness, and take my mind from the foot. I wore a worsted slipper.

"The last of October the Doctor commenced the use of a battery every night—the interrupted current being used. The sponge was applied under and over the toes five minutes, five on each side of the heel, and five under the knee. The toes twitched a great deal, and I always dreaded when the sponge neared the fourth and fifth toes, for I felt the sting and jerk along the injured side, and it made me sick. I could bear only a light pressure there. When applied under the knee I felt the line of pain down the outside of the limb, and often the toes would jump. When the current passed down the inside of the limb it felt agreeable.

"My foot always felt badly on removing the shoe at night, and the limb above was very much swollen and glossy in appearance.

"The last of July, 1891, I took a short walk, without support, along the piazza. That night my foot pained up to the knee, and I was unable to touch it to the floor for more than a week. I was careful to take only a few steps at a time after that. At the end of a year this was all I could do.

"If I rubbed the foot, or put it down otherwise than just flat when I stepped, I was unuble to use it afterward.

"I used crutches all the time at school, so as not to overtire my foot again; but, in spite of all my care, I had that dreadful feeling on the side, and many days the line of pain up the limb.

"Often the foot had fits of shaking, which I could not control."

She continued thus helpless, using crutches for locomotion, and became thoroughly neurasthenic, until June, 1892, when I saw her in consultation with Dr. Romine. We agreed that the diagnosis was clearly the peculiar painful affection of the fourth metatarsophalangeal articulation, and that the other symptoms were probably but those of reflex neuroses; also that excision of the joint offered the only means of relief. However, it was determined first to try the effect of an ointment composed of ichthyol and lanoline, together with fly blisters in the course of the affected nerves. These measures proving of no avail, in July I removed the joint. At the same time it was thought best to divide the tendo Achillis, as the heel had become much drawn up by contraction of the calf muscles, and did not relax even under anæsthesia.

From the moment of operation she never again experienced the old pain, and immediately began to gain flesh and strength under massage, hyper-nutrition, and rest in bed for three weeks. At the expiration of this period she was walking about unaided, and soon was as well and strong as ever. Union by first intention was secured, no weakness of the calf resulted, and the amount of retraction of the toe is about one-quarter of an inch. She now wears an ordinary shoe, and can make almost any exertion without discomfort.

Case II.—N. C., aged thirty-two years, female, servant, native of Ireland. Family history negative. Had always enjoyed good health until October, 1889, when she tripped in going down stairs, and brought her left foot down violently in saving herself. Instantly she experienced an intense cutting pain in the region of the base of the fourth toe. The dorsum of the foot became black and blue, while the whole limb was affected with a dull burning pain. For several days she wore a slipper; then the discoloration gradu-

ally disappeared and pain became more endurable. But she had to cut every shoe that was worn, to prevent pressure upon the painful area. This painful sensation gradually extended from the original location up the front of the tibia, and became very severe in that situation. This misled a prominent surgeon to diagnose periostitis of the tibia, and cut down upon and scrape the bone. She remained in the hospital eight weeks, and was discharged unimproved. In February, 1891, another hospital surgeon cut down upon and chiseled away a portion of the tibia. Again no improvement followed.

Early in 1892 the patient entered the Polyclinic Hospital, willing to submit to anything to obtain relief. At the time she was almost helpless, exceedingly neurasthenic, and had lost much flesh. The scars of the previous operations were very evident. The entire leg was blue and cold and somewhat atrophied, but beyond this nothing was evident except that the fourth metatarso-phalangeal joint and its surroundings were exquisitely sensitive to motion or pressure. From this point the pain was reflected up through the entire sciatic distribution. She was put to bed, and upon a milk diet for four weeks, while local counter-irritants and absorbents were applied, all to but little effect; the old pains and her general nervous condition persisted. I then excised the affected joint, and was amazed at her rapid progress to subsequent cure. Primary union was secured, and in three weeks she was walking about and entirely free from pain. Since then she has entirely recovered her former health and strength.

Case III.—Mrs. E., aged thirty-five years, well-to-do farmer's wife, seen in consultation with Dr. George L. Romine. Family history good. She is of a neurotic temperament, and faints easily. During last ten years she has been subject to attacks of neuralgia, affecting the left forearm. Three years ago she was seized with neuralgia, affecting the second and third fingers of the left hand. There was tenderness in the metacarpal region, whence pains were reflected up the forearm and arm, producing complete disability of the member. The parts were very painful to the touch, and slightly swollen. This condition persisted for four months, and then gradually disappeared. From this time until June, 1892, she remained well, when a marked attack of metatarsal neuralgia, affecting the fourth toe, supervened. This apparently did not follow an injury. The pain became continuous, and resisted all efforts for its relief, except when she laid down, when it would diminish or entirely disappeared. When I saw her, at the end of October, she had become bed-ridden, almost helpless, and exceedingly nervous, but nothing of disease was evident in the foot except the violent, unbearable pain that was invariably produced at the fourth metatarso-phalangeal articulation, upon the slightest pressing together or rolling upon each other of the outer metatarsal bones. At this time, even the weight of a stocking could not be tolerated upon the foot. The pain extended into the peroneal and sciatic nerves. She had lost fifty pounds in four months. The calf on affected side measured one and a half inches less than its fellow.

The affected joint was excised, primary union secured, and she steadily regained her usual health. Pain has disappeared, and she can walk with comfort.

A maternal aunt of Mrs. E. injured her foot eight years ago, and suffered in much the same manner as did the niece. She has never been able to secure relief, and to-day is scarce able to walk across a room without bringing on a severe attack of the pain.

A sister of the patient injured her foot ten years ago, and was then confined to her room for twelve months, because pain developed whenever the member was placed upon the ground. For five years she was unable to walk upon the street, while at the present time she cannot walk far without originating an attack of metatarsalgia, and has to be extremely cautious in walking over uneven surfaces.

Case IV.—Mrs. S. C., aged forty-five years, as missionary, residing in Japan. She writes:

"When out walking in the city of Tokio, Japan, in the summer of 1888, and wearing a new pair of high-heeled shoes, I felt first a slight pain, which soon increased to severity, in my right foot in the region of the fourth metatarso-phalangeal articulation. The pain became so intense that I could walk no further. These paroxysms of pain continued to return with the slightest aggravating cause, the disease gradually becoming worse, so that for two years past, when at home, I have seldom had a shoe on my foot, and was not able to wear the loosest shoe when riding in a carriage, being almost always compelled to remove it after entering. When suffering the most intense pain it was accompanied with a general nervousness of my whole system. Upon removing my shoe all pain and nervousness soon ceased."

I removed the affected joint in May, 1892. In three weeks the patient was able to walk about with great freedom in ordinary shoes, and has since remained free of pain.

Case V.—Mrs. R. T., aged thirty-two years; Canadian; housekeeper. Has suffered for five years from well-marked metatarso-phalangeal neuralgia, involving fourth toe of left foot. No assignable cause. Attacks have been growing more frequent and severe progressively until she became almost invalided. Was compelled to remove shoe regardless of surroundings instantly upon supervention of the attack.

In December, 1892, I amputated the fourth toe together with the corresponding metatarsal head. In three weeks she was walking about as well as ever and has been entirely relieved of all discomfort.

Case VI.—Lizzie T., a Russian; single, aged twenty-two years; mill hand. This woman works the treadle of a machine with right foot. Two years ago began having pain radiating from fourth toe. The frequency and severity of these attacks—necessitating removal of shoe—have increased steadily until she was entirely unable to work and had difficulty in walking.

In January, 1893, she entered the Polyclinic Hospital, and my resident, Dr. M. W. White, excised the affected joint under my supervision. Primary union occurred, and the cure has been complete.

Morton[8] gives the following graphic description of a case of metalarsalgia, written by a medical friend who had been a sufferer form the more severe form of the disease:

"I have suffered intensely from this affection for many years, and in all this time have never found medical man or layman who understood what I meant when I complained of it or alluded to it. It has been pronounced by surgeons who have examined my foot as a subluxation or a malformation of the articular surface of the first phalanx of the fourth toe, where it articulates with the fourth metatarsal bone, the concavity not being sufficiently concave. This I have long been convinced is an error.

"My own sensations have convinced me that the pain is caused by pressure upon a nerve, but what pressed upon the nerve I was unable to tell. The immediate necessity of removing the boot and the relief

8 Loc cit.

afforded by manipulating the foot in a manner learned by experience pointed to a dislocation; but the reduction of the displacement was never sufficiently sudden and marked to confirm the belief that there had been a dislocation.

"Now, after living for more than half a century, practiced my profession for over thirty years, and suffered half my life with an affection not understood and ranked with a disease so trifling as a corn, I find myself enlightened and the mystery cleared up by your valuable paper on the subject.

"The first paroxysm occurred in my boyhood, and was produced by tight lacing of skate straps. On unbuckling the straps, the 'cramp,' as I called it, was at first soon relieved and nothing thought of; but a continuance of this system of squeezing by tight skate straps and tight boots, and riding for hours on horseback with the flexors of the leg and foot in violent action and the toes turned in, the attacks became more frequent, more painful, and the abnormal condition of the parts became chronic. These were in my case undoubtedly the causes predisposing. The causes determining the accession of a paroxysm are the wearing of a badly-fitting boot, especially if the sole be narrow; a long and fatiguing walk, particularly on a hot day over a hot pavement; a long ride on horseback; a wet boot sticking to the sock; a wet sock sticking to the toes; long-continued flexion of the knee-joint, as in a rail-road car, carriage, or lecture-room; treading on an uneven surface, as a cobblestone pavement; and, should the nervous system be excited from any cause, these exciting causes will act more powerfully.

"The symptoms of an attack in my case are most intense pain, 'cutting to the heart,' sickening, a feeling that it is unendurable, faintness, cold sweat, total incapacity for the time of directing the mind or will to any other subject, a horrible increase of torture on the use of the boot-jack; and all this with no redness, no swelling, no abrasion of the skin, no callosity, no visible displacement of bones, at least after removal of the boot.

"The suddenness of the attack is noteworthy. I have been obliged to drop everything and remove my boot, sometimes in company, sometimes in my carriage. I have even been obliged to sit down on the curbstone and remove the boot. I have dismounted from my horse and sent home for slippers before I could proceed. I have tied my horse to a tree and lain on the ground, unable to ride farther.

"I have spoken of a tight boot and of removing the boot, but I have had tight boots which were great favorites, because they would not 'let my toe out of joint.'

"The remedies from which I have obtained relief are removal of the boot and then manipulating the toes—straightening them out. When inconvenient to take off the boot, I have found that grasping the foot tightly round the metatarsal region will answer; and I have sometimes worn a circlet of India-rubber band, binding the foot round the instep. Putting on a dry boot and dry stocking is of great benefit, and the boot should be well sprinkled with powdered soapstone before putting it on. Frequently an attack has been relieved completely without other means than rest and a cup of strong tea."

Morton also reports the following from another medical friend:

"For several years previous to 1864 I had been subject to occasional dislocations of a relaxed joint in the fourth toe of my right foot. They had always occurred in walking, and the symptoms were perfectly distinct; the reduction, which was usually effected without difficulty, by simply 'working the toe,' was equally unmistakable.

"In the summer of that year I was climbing a mountain, when the joint became displaced; and, as it would speedily have slipped out again had it been reduced, I allowed it to remain luxated until I had finished the ascent and returned to the base, when the pain was so great as to make it necessary for me to ride home. After several hours of suffering, the joint gradually resumed its normal state.

"Since that time I do not remember that the luxation has ever taken place; but I have had many attacks of neuralgic pain in the part, coming on generally after exercise, but sometimes after sitting in one position, as in my carriage. Often exercise does not induce it. Heat, as from the pavements or the sand in summer, is a much more frequent cause. It begins gradually, and sometimes wears away in the same manner, but sometimes vanishes suddenly, as if by magic, without

the use of any means of relief. The pressure of a boot always aggravates it; but it has attacked me while in bed at night. Diversion of the mind will often allay it, but it sometimes comes on again afterwards with far greater severity.

"In 1869, while spending most of the summer at Atlantic City, I suffered more from this trouble than ever before or since. It would then often come on at night, after a day in town; and once or twice the attacks lasted more than twenty-four hours. So great was the annoyance from it, that I proposed amputation of the toe to a surgical friend, but he advised me against it. Since then it has been much less troublesome, though I have sometimes had it more or less every day for a week.

"Deep pressure over the metatarso-phalangeal joint is painful, but does not bring on an attack unless long continued. Cold has given me more effectual relief than any other remedy I have tried."

The three following cases are quoted from the same source:

"In March, 1873, I was asked to see Miss H. S., aged twenty-six years, who, while in Europe four years before, had injured her right foot by stepping upon a small stone. She said that she had at once experienced intense pain, which was soon followed by slight swelling and redness. From the date of the injury localized pain continued, especially while wearing a shoe. The pain was referred to the head of the fourth metatarsal bone. There was constant distress in the part, often of a sickening character. After wearing a shoe, pain came on with great intensity. At such times the shoe had to be instantly removed, the least delay causing a paroxysm of great suffering. The boot or shoe had to be removed so often that slippers were substituted. A marked lameness was induced by the patient's endeavor to spare the foot in walking. The pain was confined to the joint of the fourth metatarsal bone with the base of the associated phalanx. Pressure in this region, or rolling the fourth and fifth toes upon each other, caused violent pain which extended up the limb. It was severe when pressure was made upon the base of the first phalanx of the fourth toe, which could be prominently felt in the third and fifth toes."

"Dr. H. W. Alison, of Hagerstown, Maryland, called on me in the spring of 1875, seeking relief from neuralgia in his right foot, which had existed for years, and was gradually getting worse, and stated that he was willing and ready to submit even to amputation of the leg. He gave the following history:

"About six years ago I experienced an unpleasant, painful sensation in my right foot, which possibly originated in a strain: the pain was first observed in the fourth metatarso-phalangeal region; in the course of a fortnight it was followed by most violent pain, which was simply unbearable and so severe that it terminated in a convulsion. A painful condition of the parts followed, and with the least provocation (wearing a shoe or boot), sometimes without known cause, paroxysms of intense pain returned at various intervals, lasting from one to forty-eight hours. The pain, with one or two exceptions, has been confined entirely to the section of the foot indicated. My suffering has been beyond all comprehension; very often I have been compelled to jump from my carriage or stop while walking, remove my boot, which has always been of ample size, apply ligatures to the limb or foot, use hypodermic injections of morphia, frictions, or call upon some one to assist me by standing on the foot. This affliction has been the burden of my life, and this burden has been increased after consulting many eminent medical men, who gave me no satisfaction as to the nature of the disease, nor even suggested a hope of relief. My health otherwise has been uniformly good. I am satisfied the cases you have had are similar to my own, save in the intensity of my sufferings, and I shall gladly submit to the operation you have suggested."

Mrs. C. H. K., of this city, a lady fifty years of age, gave me the following history: "'The queer feeling,' I have been accustomed to call it, which has been in my left foot for thirty years, is a painful condition. The pain is in and about the joint of the fourth toe, with occasional attacks of intense suffering, when the pain extends to the knee, and if my shoe is not instantly removed when the attack comes, the pain reaches the hip. It does not matter whether I wear a large or a small shoe, as I have never worn a tight one, but it seems that the least pressure will produce the same result. Often my

sufferings have been exceedingly acute, and come on without any warning. Once I was taken while walking in the street, and the agony was so great that I was compelled to rest on a stoop, remove my shoe, and walk some distance in my stocking alone, the pain running in a straight line to the hip joint. In September, 1868, while at the Academy of Music, I had an unusually severe attack, and, not removing my shoe as quick as I should have done, was obliged to walk to my carriage without the shoe, and suffered intense pain for three hours. My eldest sister has been similarly affected still longer than myself, but in the right foot, same toe and joint. She has several times given up wearing shoes, but the attacks continued."

Charles K. Mills[9], in a lecture upon "Pain in the Feet," relates the history of a typical case that was entirely relieved by the operation of Morton. A woman, in jumping upon rocks twisted her foot. The foot apparently was not injured, and she was soon about as usual. During the next two years, at intervals of from two to eight weeks, a peculiar pain in the foot would develop that would last two or three days. Two years later she injured the foot again in the same manner. After this the pain was seldom absent more than a few days, and each recurring attack was of increased violence. Again, two years later, the pain became almost constant. The pain was a dull, heavy, sickening ache, from the foot to the hip, and with a sharp pain through the foot. At times the ache would be limited to the foot, but the sharp pain was there constantly. Arising in the morning, the patient could not put her weight upon the foot until she had taken hold of it suddenly from the top and pressed it hard together, and held it in both hands with all her strength for some minutes. After exhausting every known local and general remedy, the fourth metatarso-phalangeal articulation was excised. The patient subsequently slowly became free of every vestige of the former pain, and was entirely restored to health.

Poullosson[10] describes an instance where a medical man, twenty-nine years of age, had suffered from this affection for some years. It gave no trouble when the foot was at rest and without a shoe, but was usually brought on by wearing boots and walking a good deal. It was much more likely to occur in going down than in going up a hill. The pain came on suddenly, a feeling of something having given way in the foot accompanying the onset, together with a kind of grating sensation. After this the patient walked lame, for all pressure of the anterior portion of the sole of the foot to the ground was painful. If walking was persisted in the pain increased, till in a few moments it attained its maximum, rendering all further attempts at locomotion impossible.

Edmund Roughton[11] has reported the following case:

"A medical man, aged thirty-three years, complained that for eighteen months he had suffered from attacks of burning pain in the forepart of the sole of the left foot. The pain occurred several times a week, and was usually brought on by prolonged standing or by walking any considerable distance, and was so severe as sometimes to cause him to remove his boot and grasp the sole of his foot with his hand. On examining the foot, I found that the transverse arch formed by the heads of the metatarsal bones had sunk, so that a distinct convexity replaced the concavity normally found in this situation.

"In this case the patient had increased considerably in weight during the period of development of the symptoms, and his transverse metatarsal ligament had presumably been unequal to the increased strain."

E. H. Bradford[12] has reported a series of thirteen cases, none of which, however, were severe enough to demand operation. In these the symptoms were not in a single instance the result of traumatism, nor was any evidence of dislocation or other local change observable. These patients were all in enjoyment of excellent health, and in none were there evidences of gout or rheumatism.

Treatment.—The less severe forms of metatarsalgia may often be prevented from running into the more serious types by proper shoe construction or by wearing a narrow flannel bandage about the ball of the foot. Morton, whose suggestion

9 Journal Nervous and Mental Diseases, vol. xv. p. 4.

10 Loc. cit.

11 London Lancet, March 16, 1889, p. 553.

12 Loc. cit.

the latter is, directs that the bandage be two inches wide, and long enough to wrap neatly and firmly about the metatarsus some five or six times. The end is pinned, and the stocking drawn over. This has given marked relief in a number of cases.

The shoes for persons suffering from this disease should be firm-soled, make no lateral pressure upon the metatarsus, yet have the instep tight enough to prevent the foot slipping forward. The great object of the shoemaker should be to prevent pressure, either lateral or antero-posterior, upon the metatarsal arch, and also to prevent any rolling motion of the outer metatarsal heads upon their fellows. A broad, rigid sole would appear to best fulfil this last indication. Bradford proposes the use of digitated stockings in these cases, with a view of keeping the toes further apart. As the foot spreads when the weight of the body is thrown upon the member, it is apparent that the patient should be standing when the measurements for shoes are made, as has been advised by Grün.

The use of various pads in the shoe and about the toes, also such measures as the hollowing out of cavities in the sole opposite one or more of the metatarsal heads have been tried, but invariably found unsatisfactory. A variety of the affection calling for so much attention to secure comfort would clearly demand the certain cure to be afforded by operation.

In persons where rheumatic or gouty diathesis may be suspected appropriate remedies for those disorders should be given a thorough trial before operative measures are resorted to. But when the condition is entirely of local mechanical origin the employment of general or local medicinal agents is useless. On the other hand prolonged rest in bed will benefit all cases more or less, and occasionally secure relief for long periods, or even permanently cure the milder phases of the disorder.

Operative treatment should be limited to the metatarso-phalangeal articulation from which the neuralgia radiates, or, perhaps, to amputation of the corresponding toe above the joint, as have been recommended by Morton, and endorsed by other writers. These procedures are among the safest and simplest in surgery. Of amputation of the toe, together with its metatarsal head, nothing more need be said than that by this measure the possibility of subsequent trouble arising from a tendency of the toe to retract and ride above or below its fellows is excluded. However, this heretofore occasionally troublesome sequel can be avoided by dividing the extensor and flexor tendons while excising the joint, as I have done in five cases with most satisfactory results.

Operation.—Primary union should be aimed at. To secure this the foot must be scrupulously cleansed. The nails should be trimmed short. Then soap, water, and nail-brush be liberally applied. Following this the member should be soaked in 2½ per cent. carbolic acid solution, and finally dressed in a moist carbolic dressing of the same strength until the surgeon is about to operate. Where the foot is especially foul it is my custom to finally dip it into a saturated solution of permanganate of potash until colored to a dark mahogany hue, and then transfer it to a saturated solution of oxalic acid until decolorized, before applying the temporary dressing. When the surgeon is about to operate the temporary dressing is removed and the parts given a final douche with 1:1000 sublimate solution.

A vertical incision from one and a half to two inches long is made, beginning over the proximal inter-phalangeal joint and extending upward in the centre line of the toe.[13] The extensor tendon now comes into view, and is divided. Another stroke of the knife carries the incision through its entire length down to the bone. The handle of the knife or other moderately blunt implement is then employed to separate the tissues from the upper and lateral portions of the joint. Next the blades of a powerful sharp pointed, narrow bladed, cutting pliers are pushed down on either side of the phalanx immediately below its base (hollow of the blades always toward the articulation), and this bone divided. The metatarsal bone is then similarly divided just above its head. The separated joint is then seized by bone forceps and dissected away from any remaining attachments. This done, the flexor tendons will be seen lying at the bottom of the wound, and should be picked up by forceps and divided with

13 This joint has also been excised through an incision in the sole, but the method is objectionable on many grounds.

scissors. If hemorrhage is severe and not controllable by moderate compression of the parts, ligatures should be applied. I have never had occasion to apply a ligature in this operation, as the pressure of the dressing has always sufficed to control any oozing that might continue after the sutures had been applied. The wounded edges are next to be approximated—no drainage being required if asepsis has been maintained—by continuous or interrupted suture, as may be preferred. A gauze and cotton dressing is finally applied and bound firmly on with a wet gauze roller, care being taken to place little pads of gauze in such positions as will hold the toe in its proper position during healing.

The foot should be kept considerably elevated for the first two days, after which it may be brought to the level of the bed. I prefer my cases to remain in bed or on a couch until the fourth or fifth day, when they may be permitted to sit up with the foot resting on a chair. At the end of a week the sutures are removed; two or three days after which the patient is permitted to move cautiously around, while at the termination of three weeks all restraint may be removed and a firmly healed wound and permanent cure confidently expected. No special form of shoe or care of the foot is afterward required.

In case suppuration should arise in the wound, the sutures should be at once removed, the wound cavity washed out with full strength peroxide of hydrogen solution, then with $\frac{1}{10\,00}$ corrosive sublimate solution, and gently stuffed with iodoform gauze. All of which should be repeated every one or two days until the wound closes by granulation.

In addition to the references given in the text the following may be mentioned to complete the bibliography of the subject:

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STRYCHNINE VERSUS ERGOT IN OBSTETRIC PRACTICE.

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About a year ago I was called one morning to attend a case of labor four miles in the country. Upon arriving at the house of my patient, whom I had attended the four previous labors and who was subject to severe hemorrhage succeeding delivery, I found the child about to be born. Shortly labor terminated in the delivery of an eleven-pound boy and an alarming hemorrhage immediately followed. I made firm pressure and manipulation over the fundus uteri with my left hand and gentle traction on the cord with my right when, to my dismay, the cord came away leaving the placenta in situ. Without delay I introduced my hand, which was surgically clean, up into the uterus, removed a lot of clots and peeled off an adherent placenta intact.

I think the wrapping of the cord several times about the child's neck made such a pull on the cord at the moment of birth that it was then almost detached, my slight traction only completing it; so easily did it come away.

An attendant handed my obstetric bag. I looked for my ergot (I always carry a vial of the normal liquid ergot, P. D. & Co., with me, as I find that preparation the most reliable and convenient for use by mouth and hypodermically) and to my discomfiture found I had left the bottle at the house of a patient attended the previous night. A rapid inventory of suitable remedies at my command discovered but two indicated: strychnine sulphate and laudanum. With the action of the former on the uterus I had had some experience—the latter I had never used in such a case though frequently seen it recommended. So I hastily chose the strychnine and administered to my bleeding patient three tablets of one fiftieth grain each. She was complaining of being "blind" etc. In a few moments, aided by my gentle friction of the uterus,

contractions sufficient to check further bleeding ensued and there was no more from that on—though no other dose of medicine was given during the three hours that I watched the patient.

Acting upon the suggestion above stated I have substituted strychnine sulphate (S. & D.) for ergot in the last fifty cases of labor, and with such gratifying results that I believe I have made an advance in my very humble and imperfect therapy. At least, I see no reason to return to the use of the unstable and uncertain, though time-honored ergot. Are my views iconoclastic? Dare an obscure country practitioner raise voice or pen against an idol that has well occupied a niche in the holy of holies of obstetric science "Since the time whereof the memory of man runneth not to the contrary?"

That we may show a reason for the faith (in strychnia) that is in us let us examine and compare briefly the properties and action of these two drugs whose use is as universal as the practice of medicine and perhaps as little thought about.

"*Strychnine Sulphate:* a white salt; in crystals, readily soluble in water," etc.

"*Ergotin* (I take this as a type of alkaloidal strength though it is not an active principle) is simply an aqueous extract. It varies much in strength, owing to faulty methods of preparing it, and, as found in the shops, is frequently inert. * * * * It is the most eligible preparation for hypodermatic injection." (Bartholow.)

"Many of the so-called active principles have been isolated by chemists, and named ecbolic acid, ergotic acid, schlerotinic acid, and ergotin. None of them represent the entire drug, the nearest in approach being ergotin." (Hare.)

In the classifications of the therapeutic authors in my library, from Headland to Hare, strychnine is classed as first in importance amongst the excito-motors. Ergot follows as third in some lists, fourth and seventh in others. A thoughtful author writes: "Ergot itself is very variable" (and this gets at the *meat* of the matter) "even when fresh and living, and even at the present there is scarcely any view of * * * its physiological action * * * which is accepted by all experimenters."

"Ergot and all its principles deteriorate rapidly with time, and lastly the experiments upon it have been conducted during the past half century by a great many investigators, with almost as many different preparations." (Prof. Bolles; Ref. Hand-book Med. Sci.)

If the composition of the drug is so wrapped in doubt what must its action be? And ergot in obstetric practice is not a drug for to-day or to-morrow, but *now*, in the living (*or dying*) present.

In the fall of 1884 I was summoned unexpectedly to attend a woman in labor. I had never before done any practice for this family and knew not of them. This was the patient's fifth confinement, and I learned from her mother a few moments before the child was born—for I had been tardily called—that she had narrowly escaped death from postpartom hemorrhage in the previous two labors; in which, however she had been attended by one whom I knew to be a very careless practitioner. Hence I laid the flattering unction to my soul that I could perhaps vary the usual current of affairs post partum and prevent the loss of blood detailed. Vain hope! the most fearful hemorrhage that I have ever seen followed the spontaneous expulsion of the placenta. It fairly rivalled our honored Professor Wallace's cadaver-bladder-scalpel-potass solution-water pouring drama (familiar to all old Jefferson men—and a valuable object lesson it was, too).

Despite the most judicious management of the case secundem artem—ergot, and a good (?) preparation too, by the mouth and under the skin *ad lib.* and *p.r.n.*, accompanied with external manipulation of a most flabby uterus, etc., etc., in spite of each and every effort directed to her relief, she bled until she was blind, pulseless and almost exsanguineous. From what seemed veritably the jaws of death she gradually wandered back to this vale of tears; saved, I doubt not, by the prayers of her devoted mother—for the effect of my remedies seemed *nil.* Her convalescence was marred by almost every complication incident to extreme anæmia; but she lived to bear two more children before leaving my field of practice. I impressed upon her husband, a very intelligent man, the importance of a prophylactic treatment should his wife again become pregnant, and during the fifth month of her succeeding pregnancy he applied to me. I put

her upon strychnine sulphate in aquæous solution, grain $\frac{1}{20}$ t.i.d. on alternate days up to the ninth month, when I increased the dose to grain $\frac{1}{16}$ and directed its use three times daily.

I saw no more of her until I was called to attend her in a precipitate labor—the child being born just as I entered the room. With the exception of the dose of strychnine taken as usual (which happened to be at the inception of the unexpectedly sudden labor), not a dose of medicine was administered. The hemorrhage was less than that of a normal labor, much to the patient's surprise and my own satisfaction. The solution was continued daily during the puerperium, and involution and convalescence were rapid and uneventful.

I had learned in the meantime that this patient had for some years been in the habit, at the suggestion of a medicine-wise friend (?) of indulging in frequent potions of a good quality of fluid extract ergot from a six-ounce vial which she kept in her possession, thus hoping to rid herself of the unwelcome burdens of matrimony. Consequently I gave her favorite beverage a wide berth; well knowing at this time what I knew nothing of in my former experience with her, that, in therapeutic effect, ergot was to her as water to others. A discovery which perhaps explained the impotence of my former heroic dosage.

On this hint I since have acted, and in the score of "flooders" whom I have been called on to treat in the past eight years, I have been gratified and sometimes astonished by the almost specific action of the salts of strychnine upon the uterus; especially in the pregnant state.

A lively, and at times heated discussion as to the exact physiological action of ergot has continued through many years up to the present.

Prof. Hare, who is probably our most scientific investigator in the physiological action of drugs, avers his belief that Hemmeters studies prove that ergot causes uterine contractions by stimulating the lumbar centres rather than as a stimulant to the uterine muscle; in other words that it acts as an excito-motor direct. This view I have always believed to be correct; though no observing clinician can deny that in certain parts of the body—and perhaps to a certain extent in all—it contracts the arterioles through vaso-motor action. But I believe this action to be secondary, incidental and, as regards the uterus, of only comparative importance.

I was once as firm a believer in the specific action of ergot upon the uterus as of quinine upon malarial poisoning, but I now assert that the claim of ergot as a uterine stimulant rests upon emperical observations made in the dark ages of therapy long antedating the era of the study of physiological actions; and I maintain that at the present stage of modern obstetrics, when external manipulation of the uterus in cases of inertia is playing so large and important a part, it is impossible in the conjoining of drug and hand to decide to which the meed of praise belongs.

Incidentally I have found fifteen drop doses of normal liquid ergot repeated half hourly, for 3 or 4 doses, valuable in increasing the efficiency of lagging pains and, when alternated with vinum ipecac into drop doses every fifteen minutes, it is serviceable in lagging pains, rigid os and dry surfaces. Here its use has a value and is attended by an appreciable result; but at that critical moment in the phenomenon of labor when its aid is most invoked, when precious life blood is fast ebbing, I firmly believe that its effect is as uncertain as is the stability and nature of its composition. Almost all patients loathe its nauseous taste. (And if the palate rebels at a fluid extract how must it recoil at "15 or 20 grains of the freshly powdered drug in water"—an old proceedure whose revival is warmly recommended by a late authority?) I have seen many patients vomit it almost immediately who were not previously nauseated, and the relaxation attendant upon emesis did more of harm than the ergot ought to have done of good. It is not pleasant nor profitable to have a patient so nauseated by one's own act as to compel a resort to external manipulation of the uterus while the patient is vomiting and lying upon her side or belly.

The points I have humbly endeavored to present are these: Ergot is a most nauseous drug, the strength and stability of whose various preparations are matters of grave doubt or conjecture.

In so great a degree is this true that the potent and marvelous chemistry of the present, rivalling, as it does, the magic of the alchemist's art in years lang syne, has failed to penetrate the mystery of its alka-

loidal powers if such there be. So I take it that P. D. & Co.'s Normal Liquid; Squibb's fluid extract and S. & D.'s Ergotole have done the drug full justice, and represent all of value there is in its composition known at the present day. Strychnine is a non-nauseous and quickly absorbed scientific alkaloid which can be kept without loss of strength for years. It is in the hands of every practitioner, in exact dose, in hypodermatic tablets, for quick and ready use by mouth or needle. It is the ideal excito-motor—the type of the whole group. It has a distinct triple action: invigorating and sustaining the action of heart, of lungs, of uterus: a most valuable and timely aid in preventing and in relieving shock from hemorrhage or other cause. *Its action upon uterine contractions is specific.*

SOCIETY REPORTS.

SURGICAL SOCIETY, OF LOUISVILLE.

Stated Meeting, March 13th, 1893.

Dr. W. L. Rodman, President *pro tem*, in the chair.

PERFORATIVE SHOT WOUND OF ABDOMEN —OPERATION—RECOVERY.

Dr. A. M. Vance: The seventh day of last February this patient, thirty years of age, was shot with a 32-calibre bullet in the left side of the abdomen five inches to the left and on a line with the umbilicus. I saw him within a very short time —probably a half hour—afterward. He showed evidences of very marked shock, evidence of being greatly impressed and I had him removed carefully to the Norton Infirmary, opened the abdomen as quickly as I could and found two complete perforations of the ileum, two of entrance, two of exit, also one of the mesenteric border of the ileum. Suturing was rapidly practiced and he was gotten off the table really in better condition than when he went on. A glass drainage tube was left in the lower angle of the external wound for forty-eight hours, drainage was very considerable. The man has made a rapid and satisfactory recovery. He was up walking about the Infirmary at the end of the second week, has lost very little strength or flesh. On the fourteenth day he was given a purgative. For five days he was starved to allow rest of the alimentary tract. The lower bowel was emptied by enemata; he has not had an untoward symptom and is about well now.

DISCUSSION.

Dr. W. L. Rodman: How long after the shot before the bowels were allowed to act?

Dr. A. M. Vance: I think I relieved the bowels by enemata at the end of forty-eight hours just for comfort.

Dr. W. C. Dugan: How long after taking food was he shot?

Dr. A. M. Vance: I do not know, but he had probably been eating considerable, because he vomited on the table an enormous quantity. And the intestines were filled with feces.

Dr. W. C. Dugan: Was there any fecal matter in the cavity?

Dr. A. M. Vance: I could find none in the cavity; it was very thoroughly washed out, in fact the major portion of the time consumed in operation was in irrigation, getting rid of material vomited, and reading of the intestines. I used the continued Lambert suture of catgut supported by resuturing, the ends of suture being tied together.

I think it is very important in these cases of section, especially in men, that a bandage should be worn for a long time to support the cicatrix. I think herniæ are more likely to take place after laparotomy in men than in women. This may be accounted for by the greater convexity of the abdomen, aud consequent increased strain.

Dr. H. H. Grant: What was the temperature after operation?

Dr. A. M. Vance: I do not believe the temperature was ever over 100° F. The pulse ranged along about 90 for the first week then came down to normal. He was starved absolutely for three days; for a number of days more he only received consomme, and for several days following he was only given eggs. I have come to the conclusion that egg raw is the best thing that can be given after operations of this character.

Dr. Geo. W. Griffiths: I think Dr. Vance is to be congratulated upon the very marvelous result of the case, it would have been a necessarily fatal one I should say without operation. I operated upon a case of the kind two or three years ago where there were several perforations of the intestine; in this case there was a concealed hemorrhage about the spinal region which could not be controlled, and the man died thirty-six hours after operation.

Dr. W. C. Dugan: Certainly Dr. Vance is to be congratulated upon the results obtained in this case. I am rather surprised that these cases have always been fatal. You will remember two papers in the *New York Medical Journal* by Stimson, where he reported up to that time all the cases he had been able to get the history of in America. In this valuable contribution he compared the results of those cases operated on with those left without operation, and the conclusion of this painstaking surgeon was in favor of non-operation. The mortality in the cases operated upon was 87 per cent. and the cases that were left and treated purely by the expectant plan 83 per cent. He concluded his discussion, however, in his last report by stating that while the mortality was in favor of the non-operative procedure, he would under favorable surroundings operate even in face of such evidence. That coming from Stimson, a conservative man—yet a bold surgeon—I think should not be passed over lightly.

Now in regard to the late war—while we are not to be governed by statistics compiled in these pre-antiseptic days, they have been referred to in previous discussions so I take the liberty of calling attention to this here, as they have some bearing on the subject, since they show the result of the non-operative treatment. Otis states that there is no case on record of gun shot wound of the small intestines that recovered. In gun shot wounds of the stomach there were a number of cases on record of recovery, and of the large intestine under 80 per cent. terminated favorably. I have two cases of gun shot wounds of the intestines to report, and they were both fatal. They were both cases of perforative wounds, and both patients died in condition of shock. Certainly the case reported by Dr. Vance is one of extreme interest, and the reason of this happy result is that he operated at once before extravasation of fecal matter into the peritoneal cavity had taken place, and had his patient in an Infirmary thereby having the advantage of Hospital service. I do not wish to be understood as standing here advocating "the let alone" plan of treatment. I would have done exactly what Dr. Vance did. We are confronted by the startling fact that most all these cases die after operation. We cannot promise the patient much. The mortality in Louisville has been—with this case of Dr. Vance's excepted—100 per cent. In conclusion I wish to say: That all cases coming under observation soon after the injury with favorable home or hospital surroundings, where the surgeon can command the services of good assistant and nurse, should be operated on—otherwise leave them alone.

Dr. H. H. Grant: It seems to me that in the present understanding of these cases, the light in which surgery has put them at the present day, such cases as those spoken of by Dr. Dugan and the one reported by Dr. Vance, are understood by all surgeons to imperatively demand an exploratory incision even if there is a possibility that the intestine has not been perforated. I do not think the statistics Dr. Dugan refers to are of much value in the light of present progress of surgery, and I think that conservatism would hardly be the term that would be applied to any surgeon who would hesitate to operate under conditions that were at all favorable, it would rather be cowardice. There can hardly be any question at the present day but the wisest plan is, if there is any doubt about there being any perforative wounds, to explore through the wound itself with the finger until perforation is determined and if that perforation is found to be in a favorable situa-

tion, enlarge the wound to a complete laparotomy or complete the operation by making another incision in the median line as Dr. Vance did. Where there is any question as to perforation going through the abdominal wall, it is easily settled by exploration by the finger. Four or five years ago there was some question about the size of a bullet and the point of perforation; a small bullet penetrating the abdominal wall above the umbilicus was looked upon by some surgeons as not indicating an absolute necessity for operation. A larger bullet in any situation and all bullets penetrating below the umbilicus were marked by many surgeons, especially by Wyeth, as demanding investigation by abdominal section. At the present day, however, I believe that the surgery of laparotomy has been rendered so safe under such conditions as we are able to command in nearly every case, as to make it little less than criminal for a competent surgeon to hesitate to open the abdomen with view of determining whether perforation of the intestine has occurred. Where perforation of the intestine has occurred by almost any bullet that is used by any weapon at the present day, the certainty of fecal extravasation is almost absolute. Where fecal extravasation has occurred a fatal result will almost invariably obtain. Where one of the larger vessels of the mesentery is divided, or important viscera wounded, fatal hemorrhage will be almost sure to result and if any thing should happen to control it, sepsis, even if there were no perforations of the intestine, would be a very imminent danger. I am thoroughly impressed with the belief that the danger of an exploratory operation if it be properly conducted, is almost nothing, in comparison to the immense risks that the patient is subjected to without this operation. And I think it is hardly wise, and perhaps upon second thought Dr. Dugan will agree with me, to consider these old statistics in view of the present status of surgery.

With respect to the operative steps: It has been my preference in suturing all the viscera of the abdomen to use silk rather than cat gut, because I believe it is more certainly rendered aseptic, it is easier handled, and very fine silk can be used, perhaps finer than cat gut and it is easier of manipulation.

It is true that small perforations of the small intestine by a small bullet have been known to close up by swelling without the escape of fecal matter into the cavity; under these circumstances if no vessel were injured, it is possible the patient would recover without operation. In the majority of cases, however, where any bullet, even the small twenty-two caliber, has entered the cavity it is probably a hopeless expectation to look for any other result except fecal extravasation, and practically the result of fecal extravasation is invariably fatal, without abdominal section. In some instances where large laceration of the abdominal wall has occurred, fecal extravasation might be prevented by external escape and might suggest the propriety of establishing a permanent fecal fistula; I feel quite sure, however, that it is scarcely wise to discuss this in surgery, as it is too rare to be practical.

Dr. I. N. Bloom: Given a case where a man has been shot below the umbilicus into the belly at short range with a large caliber revolver, and the patient, after going through a protracted illness recovers —say after three week's illness, some fever and slight evidence of peritonitis—there was no operation or exploratory incision of any kind. Would you come to the conclusion that the intestine had not been perforated?

Dr. W. C. Dugan: If there were any evidences of peritonitis, I should conclude that the intestine had been perforated.

To illustrate a point I made in my former remarks: I remember the case of a little boy who was accidently shot with a thirty-two caliber rifle through the abdomen, the bullet entering just to the left of the umbilicus ranging through and coming out just in front of, the kidney on the opposite side. A young physician was called, a man who had never performed or assisted in a laparotomy. He told the family that the boy would certainly die, that there was absolutely no question about it. He urged upon them the advisability of an operation, but with the meagre chances he suggested of recovery they would not consent to it. That boy recovered and was about his play at the end of a week.

That young man was a good physician, but if he had opened the abdomen in this case, inexperienced as he was, I hardly think there is a surgeon present that would question the patient's chances of recovery.

The operation would certainly have been very grave indeed, without surgical surroundings, without hospital advantages, and without surgical experience. The patient would most likely have died with the operation, whereas he recovered without it. We should not judge hospital cases by those we have on the outside. Any surgeon is liable to be called to see a case in a negro hovel for instance, where the patient will not go to the hospital, and if operation be performed in such a case with the decidedly unsurgical surroundings, with nobody to nurse the patient afterward, I believe death will result in 99 if not 100 per cent. of all cases, and it will simply be a stigma on abdominal surgery. I should like to go on record as stating that the majority of these cases should be operated on if they could be placed where they could be cared for, otherwise I think the operation should be discouraged.

The statistics of Stimson, (who is one of the greatest surgeons in the world) compiled since the day of antiseptic surgery, show that the mortality is four per cent. in favor of non-operative work. We cannot afford to turn our backs upon the statistics of such a man as Stimson. Ideal surgery is not always the best surgery. It is the best surgery that saves the greatest number with the least facility —with the least amount of suffering.

Dr. H. H. Grant: I believe Stimson states in his papers that a number of cases recovering were not verified by any positive evidence of there having been a perforation. A great many of them did not have any verification of it, consequently the mortality of his report should not be considered, except in so far as there is positive evidence of perforation. The position I took, (and the position I think we all ought to take with respect to surgery) is that it should not only be in competent hands, but in safe surroundings. Of course we cannot expect to instruct people who are too ignorant to give an emetic or an injection in the treatment of conditions where it is absolutely demanded, to locate brain tumors and do hysterectomy—still it would be folly not to teach that this is the proper method of treatment when in order, and we take the position that we are excusable in allowing such neglect of treatment, if we fail to urge upon the authorities to put such conveniences and facilities around a populace as safety and security demand. I think we ought to teach what is right; we ought to teach principles, and not make allowances that are inexcusable and unscientific, which will allow a loop-hole for ignorance or even criminal neglect. What I said was in support of a surgical principle not isolated cases, and not supposed to be any exception to that universal law, "that there is no rule that has not an exception." The principle I mean to advocate is that if a surgeon has a case of gun shot wound into the belly, he should not waste precious time in futile conservatism, not that he would be expected to take a pocket knife and slash open the abdomen and sew up the cuts with a dirty string—what I meant is the principle that it is our duty to advocate operative interference in all conditions of this kind, and not be misled or be dissuaded from operation by the consideration of statistics that I think scarcely have any bearing in the present advanced state of surgical science. I do not mean to under-estimate anything that Stimson says, but I do mean to say that in this particular there has been a marked advance in surgical science and it will only be perfected when the principle is impressed upon those who are beginning to practice surgery and who are being taught it.

Dr. W. L. Rodman: There is perhaps no subject at the present day that surgeons are more in doubt about than they are as to what they shall do in cases of wounds of the abdominal wall, whether they have penetrated the cavity or not. Now, it seems to me that the first thing to do in either a stab or shot wound is to satisfy yourself beyond any doubt as to whether or not you are dealing with a penetrating or non-penetrating wound of the cavity. I think that the symptoms in these cases will generally be misleading. We will not always find shock and other symptoms that sometimes present themselves after shot wounds of the gut particularly, and I am one of those persons who believes very much as Dr. Grant does. I think that in all shot or stab wounds of the abdominal wall, I do not care if there is entire absence of all symptoms indicating perforation of the cavity, it is at least the surgeon's duty to disinfect his little finger thoroughly—not use a probe because it is very easy with it to convert a non-pene-

trating into a penetrating wound—and carefully examine so as to determine beyond a doubt whether or not the cavity has been opened. If necessary the external wound can be sufficiently enlarged to admit of free exploration with the finger. Now having ascertained that the cavity has been penetrated, especially if you are dealing with a shot wound as we are discussing to-night, I believe that statistics all prove that 99 times out of a 100 some one of the important viscera will have been injured, and I fully agree with Dr. Grant that it is our duty to do a median laparotomy and search for the injured viscera and repair it. I believe this is what we should do in every case.

Concerning the statistics that have been referred to to-night: Of course memory is uncertain, but I am of the opinion that Otis makes a stronger statement in regard to shot wounds of the small intestines than Dr. Dugan gives him credit for. Unless I am very much in error he makes the statement almost in these words. "There is no incontestible case of recovery on record, of all the men shot during the War of the Rebellion, after wound of the small intestine." Abernethy said that, "Nature will do nothing for these cases, but leaves them to their fate." Otis does say in the same connection, however, as Dr. Dugan has remarked, that there were a number of cases of wounds of the large intestines that recovered during the war. Of course we know that most of these cases shot during the war may have been shot with minnie balls or very large bullets, consequently would have very little chance of recovery, whereas a man shot with a 22-calibre bullet would have a better chance to get well; fecal extravasation might not take place after injury with a 22 bullet. I can well understand how some of these cases will get well, but I agree in the main with Dr. Grant, that while admitting the possibility of shot wounds of the small intestines getting well when they have been made by a small bullet, at the same time I believe that the dangers of fecal extravasation and peritonitis are greater than the dangers of laparotomy. I have had four cases of shot wounds of the intestine, only one of which recovered.

No. 1.—The first case I operated on in the city Hospital early in 1887; this was the first case operated on in the city of Louisville, or so far as I know south of the Ohio River. The man was shot in the right side above and midway between the umbilicus and the liver. He had been in a fight in a bar-room one Sunday morning about two o'clock; I had him sent to the city Hospital and as soon as I could make arrangements did a laparotomy by candle light, as we had no gas in the hospital at that time. I found the left end of the left lobe of the liver loose in the peritoneal cavity; found two wounds of the small intestine, and a large quantity of blood in the abdominal cavity. I repaired the wounds of the intestine as promptly as I could; there was no bleeding from the torn surface of the liver so I let that organ alone, stitching the capsule with fine cat gut. This man died of peritonitis in about twenty hours after the operation.

No. 2.—The second case was in a mulatto boy about sixteen years of age who was sent to the city Hospital, having received a wound to the right of the median line midway between the umbilicus and the left anterior superior spinous process of the ilium. Drs. Vance and Cartledge came in at the time and saw the case with me. A median laparotomy was done and two large wounds of the gut were found, one of them large enough to permit extravasation into the peritoneal cavity of a considerable amount of fecal matter and along with the feces an *apple core* which the patient had swallowed. This patient lived, so far as I remember, thirty-six or forty-eight hours.

No. 3.—The next case I saw was a negro sbout twenty-six years of age, who was brought to the city Hospital on Christmas day, 1891. I found a wound just over the bladder; the *interne* at the hospital thought the bladder was injured, I did not think so. A median laparotomy was performed after exploring the wound with my little finger and satisfying myself that the cavity had been opened. I found seven complete perforations and two incomplete wounds of the small intestine. These wounds were all repaired very promptly as I had good assistants. This man was not on the table more than thirty or thirty-five minutes. I completed the operation in less time and more satisfactorily than any I had ever done before. During the time I was operating I noticed a white, flaky fluid which would occasion-

ally come out of the abdominal wound, and I remarked to the assistant that I thought the patient must have had tubercular peritonitis, as I could not understand that flaky stuff coming out of the peritoneal cavity. The man was put to bed in good condition, little or no shock. When I made my round the next morning I noticed what seemed to be pus discharging from the drainage tube. On examination it proved to be the flaky-looking material which we could not understand at the time of operation; the *interne* said that quantities of it had passed during the night. I said then that I believed the man had a lumbar abscess which the pistol bullet had opened, and that explained the peculiar looking fluid. The discharge from the drainage tube was unquestionably pus, there could not have been any doubt about it. The man developed peritonitis at twelve o'clock that day and died late in the afternoon. We made an autopsy and found that my suspicions were correct in regard to the lumbar abscess. All of the wounds in the intestine had closed perfectly; there was no great amount of inflammation around the wounds; the intestine was tested by the water test and all of the rents were seen to have been completely closed. We found in the peritoneal cavity a large quantity of pus, certainly not less than one and one-half pints or a quart; then searching further back, we found that the bullet had entered a lumbar abscess which had partially emptied itself into the cavity. This man was the first and only one of the three that I thought had any chance of recovery; I believe that he would have made a good recovery notwithstanding he had seven complete wounds of the intestine, had there not been this unique feature in the case—the bullet penetrating a lumbar abscess, the pus pouring into the peritoneal cavity and causing peritonitis.

No. 4.—I was called by Dr. W. Carroll Chapman the day after operating on the case above reported, to see a case down town that had been shot on Christmas day. I found a negro girl about fourteen years of age that had been accidentally shot by the discharge of a pistol in the hands of a cousin of hers, the bullet being rather large, probably a 32 or 38-caliber. The ball had entered below the middle of the crest of the ilium, ranging downward; I could trace it down to the sacro-sciatic foramen and it had gone into the pelvis at that point. I found the child on the morning of the 26th with high temperature—105½° F.—pulse very frequent; belly tympanitic. I asked the question if she had passed bloody stools, and they said she had passed two or three tablespoonfuls of blood a few minutes after being shot; she later had an action of fecal matter and it was freely tinged with blood. So I have no doubt in the world that the intestine was injured in this case. Not seeing the patient, however, until the next day, and the child already having a tympanitic belly, and other symptoms which led me to believe that the time for a laparotomy had passed, I concluded to see what this case would do without it. The wound was freely enlarged, irrigated and plugged with iodoform gauze. I thought that I could detect a fecal odor to the discharges coming from the wound. We let the case alone draining it well and the girl made a beautiful recovery and is well to-day.

Now, I do not think there can be any doubt about the intestine having been perforated, otherwise I cannot understand why she passed blood after being shot; she later on passed fecal matter which was also thoroughly mixed with blood.

The statistics in these cases I think prove one thing—that if operations are to be done at all, they should be done promptly. And I for one profiting by my own experience in four cases, and also by a number of others that I know of here in Louisville as well as others that I have read of, am satisfied in my own mind that the best procedure is to operate upon every case of shot wound of the cavity, and I shall do so in every instance where I reach them within two or three hours after the injury. I believe that an operation done as late as ten or twelve hours after the injury gives very little promise of success, if Coley's statistics are to guide us. He was the first to make anything like complete statistics on the subject, and in his paper in 1889, he made it very clear that if you are going to operate with any hope of success you must do so early. I advocate operation in these cases, but I do believe that you must operate very early. After much fecal extravasation has taken place, and if the fecal matter has been in the cavity several hours I do

not think there is any chance of recovery.

Dr. W. C. Dugan: I had one case of gun shot wound of the bladder, which was peculiar in some respects. The man recovered without operation but I have always been of the opinion that there was simply a slit in the bladder and no extravasation of urine. The bullet was afterward removed from the bladder. Now whether it was intra- or extra-peritoneal, I am unable to say.

Dr. H. H. Grant: I would like to ask Dr. Rodman if he does not think in the last case reported by him there was perforation of the rectum behind the peritoneum.

Dr. W. L. Rodmam: I thought of that, but why should the patient have had swelling of the belly, etc.

Dr. Dugan's remarks call to mind a most interesting case I saw when I was surgeon in the Army: Dr. J. W. Bannister, Assistant Surgeon at St. Remo, Indian Ter. had operated upon an Indian scout who had been shot through the ilium, and he afterwards removed an enormous calculus from the bladder. The bullet had evidently crashed through the ilium and had either gone into the bladder or driven a splinter of bone there which acted as a nucleus for the formation of the stone. He reported the case in the *American Journal of Medical Sciences* about July, 1880, I think, and I afterward saw the patient.

Dr. Turner Anderson: Shot wounds of the bladder are not so very uncommon, where the ball lodges in the bladder. A case occurred in my practice a good many years ago. The history of the late war proves that there are numbers of cases of shot wounds of the bladder, the bullet lodging in that organ, taking all sorts of directions to get there.

Dr. J. G. Cecil: My experience in the matter of shot and stab wounds of the abdomen is very limited. I am clearly of the opinion, however, that all shot wounds where it has been demonstrated that the shot has been a penetrating one, it is safer to investigate further by a laparotomy or by enlarging the opening, than it is to leave the patient to the chances of nature. There will be very little additional shock by the operation added to that already existing, if there be any, and you clear up all doubt in the case which is a very important factor, and which if left to develop by symptoms of an inflammatory kind indicating peritonitis, sometimes renders it too late for operative procedure. I have seen several cases of the kind in the practice of other gentlemen, and have always been of the opinion that early operation was the thing to do.

As for stab wounds, my practice in this class of cases amounts to little and my opinion is merely theoretical. It seems to me however that if there is a very profound impression—and I am aware while I am saying this, that this alone is not a safe guide—that where there is a profound impression from stab wounds of the abdomen, it would be safer to investigate with view of determining if there be a wound of the intestine. We often see directly contrary statements made by men who are equally competent to judge. One man reports six cases upon which operation has been performed, in which there were five cases of gut wounds; another reports several cases of stab wounds of the abdomen and no wound of the gut. If you take these and put them together, rather if we take all cases reported here, we find that a very considerable proportion of stab wounds of the abdomen also have stab wounds of the gut. Now, when we consider that there is so little added by exploratory incision, or enlargement of the stab wound under the advanced and very thorough surgical measures, I do not think we ought to leave these cases in doubt, and certainly if I were called to see a case of stab wound of the abdomen with profound impression, whether I saw at once evidence of gut wound or not, I should be very much disposed to investigate further, believing that I would add very little to the case by making such investigation.

I was quite impressed by the remarks of Dr. Vance at the last meeting of the Medico-Chirurgical Society in regard to the method of investigating these wounds. I have been associated with him in one or two cases of this kind, in which in examining the gut large quantities were unavoidably exposed at one time. I think this is unfortunate and should be avoided if possible. There is an impression made upon the intestine by exposure to the atmospheric air and cold, and this should be avoided. If it is possible, the method that he adopted in the last case is the correct one, that is, reading the gut and

putting it back as you read, repairing it as you go along, at no time exposing more than a few inches of the gut. In this way we avoid exposure and shock to the intestine, which is a very important factor in the final recovery of the case.

DR. A. M. VANCE: I have little more to add, after thanking the gentlemen for the free discussion of this subject. I am convinced from my own observation that when a bullet perforates the bowel, that death will follow if this perforation is intra-peritoneal. If we are satisfied at the time that the missile has entered the cavity, exploration is in order. The condition of the patient generally when this point is reached, should, of course, be considered, also, the surroundings. We should always be prepared ourselves, get the best assistants possible, and get to work as quickly as we can, in the best surroundings possible in each case; do the work quickly, exposing the abdominal contents as little as the injuries will allow, and, particularly, doing as thorough cleansing with long douche tube as the condition of the patient will permit. If any time is wasted let it be in irrigation. I think we should even strain a point in favor of operation in every case, as, often, the forlornest of the forlorn cases in abdominal work will be successful. One point of importance has not been mentioned, the fact that death comes from extra-peritoneal injury which it is unsurgical to attempt to repair, as after the intestinal wounds have been attended to there is no more resistance left on the part of the patient. I mean wounds of the kidney, ureters, great vessels, &c., also the wounds of the solid viscera are often beyond repair, and cause death after the intestines are made intact.

Summary of Results in the Treatment of 701 Cases of Membranous Laryngitis by Intubation.

Dr. Dillon Brown in the *Archives* of *Pediatrics* for April states that from June, 1885 to January, 1893, he saw 701 cases of membranous laryngitis; and, with less than a dozen exceptions, they all occurred in the practice of other physicians. Those, which presented themselves in his own practice were seen by other men in consultation.

Of these cases, eighteen refused permission to operate and only one recovered; twenty-nine died of asphyxia before they could be reached; thirteen were severe septic cases with hoarseness, in none of them was the laryngeal obstruction great, and in most of them it was slight or even absent; in sixty-eight cases, although the stenosis was severe, operation was postponed with the hope that they might improve or, at least, not grow worse, one of these died during a sudden attack of dyspnœa shortly after our visit, the rest made a good recovery.

In 573 cases the obstruction grew so severe that operative interference became necessary to save the life of the patient. In all the cases, intubation of the larynx was done; in no case did the child die during the operation, although most of them were very bad and several of them were unconscious and pulseless at the time; and in no case was it found impossible to insert the tube into the larynx. These cases, of which 186 or 32.4 per cent. recovered, may be arranged in series, as follows:

Cases	1 to 100, June '85 to Aug. '87 with 22 per ct.	recov.
"	101 to 200, Aug. '87 to Oct. '88 with 32 per ct.	"
"	201 to 300, Oct. '88 to Nov, '89 with 33 per ct.	"
"	302 to 400, Nov. '89 to Apr. '91 with 29 per ct.	"
"	401 to 500, Apr. '91 to Apr. '92 with 36 per ct.	"
"	501 to 573, Apr. '92 to Jan. '93 with 45 per ct.	"

To color bone red. Boil in vinegar in which cochineal has been macerated for several days, taking care to keep every part of the article covered with the liquid. A fine deep purple red is gotten by immersing in ammoniacal carmine solution for a sufficient length of time. If a very deep color is desired, immerse the article, previously to boiling as above, in a very dilute solution of potassium hydrate for a few moments. Yellow is obtained by first immersing the article for several hours in plain vinegar or an alum solution, and afterwards in a decoction of saffron or barberry to which a small portion of alum has been added. A green stain is made by dissolving three parts of verdigris and one part salammoniac in vinegar. Blue is the result of alternate immersions in the green bath and in one of potassium hydrate. Black is the result of a bath first in a decoction of logwood and afterward in a solution of acetate of iron. These processes can be used for staining ivory.—*Cosmos.*

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SATURDAY, MAY 13TH, 1893.

EDITORIAL.

PENETRATING GUNSHOT WOUNDS OF THE ABDOMEN.

At a meeting of the Louisville Surgical Society, March 18th, the discussion of gunshot wound of the abdomen which followed showed very clearly the great revolution which abdominal surgery has made in the treatment of such cases within the last few years. It has not been very long since, that so good a surgeon as Stimpson published the statistics of the New York hospitals showing a greater mortality in those treated by section, irrigation and drainage, than in those treated expectantly. But statistics are of very little value in settling such questions because they are a barren array of figures and the modifying circumstances are left unmentioned.

It has been definitely and positively settled by a large number of cases in the hands of the best operators that the mortality depends largely upon the length of time that intervenes between the injury and the operation. Promptness in these cases adds very much to the chances of recovery. If operation is delayed for symptoms, and peritonitis has already set up section is useless. If a clean operation in skilled hands, with a short anæsthesia and a complete repair of all injuries, followed by thorough irrigation and drainage where the cavity has been handled or soiled, is resorted to, a majority of these cases will recover.

The proper way in which these cases should be handled is beautifully shown in the report of the case, in this issue of the REPORTER by that brilliant surgeon, Dr. A. M. Vance, of Louisville; though, in sewing up the wounds of the bowels we would prefer silk to catgut.

When the surgeon is called to see a case of gunshot wound of the abdomen the first thing to be ascertained is whether the abdominal cavity has been penetrated. The quickest, easiest and safest way to settle this question is by exploratory section. Let the surgeon waste no time in amusing himself with such surgical toys as the hydrogen gas test. If he does he will begin in doubt and probably end in disaster. A clean knife, in clean hands, with surroundings as clean as soap and boiled

water can make the m will give him more information and in a safer manner than he can gain by dallying with refinements of surgical invention. It is not necessary that a man should be carried to a hospital to be successfully treated. The genius of a surgeon is no where more clearly or beautifully manifested than where he compells surroundings to suit himself. Some of the most beautiful and successful work ever done in Philadelphia, or for that matter in the world, was done at the homes of the patients where all that was necessary to success was carried in the operating bag of the surgeon and beneath his hat. Success in these grave emergencies depends more upon the man that does the work than it does upon the place where it is done. The successful surgeon is independent of hospitals. With him a hospital means simply a patient, a good nurse, an operator and a room. It matters not whether this room is in a building with one hundred other rooms or in a building with only one other room, he adapts means to ends and with him there is no such thing as fate.

Give such a man a patient shot in the abdomen, and with a short incision, rapid work, plenty of water, short anæsthesia, quick repair of injuries and as little exposure of viscera as possible, clean hands, instruments, field of operation and dressings with a proper regulation of diet and a withholding of opium and we will have the lowest mortality possible and a showing that will send expectancy into innocuous desuetude.

TRANSLATIONS.

TREATMENT OF CERVICAL STENOSIS BY BILATERAL DISCISSION.†

In (*Le Bull. Med.*, February 22, 1893), Pichevin says, that in a recent work read before the *Soc. de Chirurg.*, Pozzi made an attempt to revive the favorite operation of Sims—"The gynecological operation par excellence"—bilateral incision of the neck of the uterus for the purpose of correcting stenosis of the external orifice and congenital narrowing of the cervical canal. Discission of the neck was practised for the first time in 1873 by Simpson. Sims used and abused this operation. With it he treated dysmenorrhœa and proposed to do away with sterility, dependent upon deformity of the cervico-uterine canal.

In reading over the clinical notes upon uterine surgery it may be noticed that the celebrated American gynecologist was not mistaken in recognizing the true value of bilateral section, and that he had very precise opinions upon the indications and contra-indications of this operation.

Sims had noticed that after sections of the neck, according to his process, the two lips of the incisions made laterally showed a tendency to reunite. The cervical cavity did not delay in closing and at times the external orifice was as contracted after as before intervention. The operation did not tend therefore to a permanent result. Pozzi thought that it was sufficient to prevent reunion of the two cervical lips in order to obtain a more durable result than that which had been obtained by the great protagonist of bilateral discission. He modifies the operation as follows: He carries each of his incisions high up on either side. He thus has two long cervical lips—the one above—the other below. On drawing the upper valve upwards and the lower downwards there is brought before the eyes a large part of the cervical cavity. The cervical mucosa is divided into two portions corresponding to the two lips. If now the inner aspect of the upper lip is examined, upon the median line may be noticed half of the cervical

†Translated for THE MEDICAL AND SURGICAL REPORTER, by W. A. N. Dorland, M. D.

mucosa and laterally two raw surfaces resulting from the section of the cervical parenchyma. Upon this raw surface, contracted transversely and elongated from before backwards, Pozzi forms a long flap in the shape of a wedge. A longitudinal incision starts from the angle of separation of the two lips and descends through the length of the cervical mucosa upon the bleeding surface up to the anterior extremity of the neck, that is to say, as far as the divided external orifice.

A second incision is made upon the same surface of the lateral section through the length of the vaginal mucosa of the neck. The incision commences at the angle of separation of the two lips and terminates at the external orifice. Two parallel incisions are carried through the thickness of the uterine tissue until they meet. There is thus formed a long flap of a prismatic and triangular form. One of the faces of the prism looks forward and includes the greatest portion of the bleeding surface. The angle is found in the depth of the cervical parenchyma. When the flap is lifted up the surface of the lateral section is converted into a sort of gutter, the base of which, in place of being rounded, is flattened laterally. The internal border of the gutter corresponds to the cervical mucosa; it is the cervical flap; the external border is parallel to the vaginal mucosa which is reflected upon the cervix—this is the vaginal flap. The sutures are passed transversely in such a way as to approximate the vaginal to the cervical flap, from the angle of separation of the two lips up to that portion of the section which corresponds to the external orifice. Thanks to these sutures the approximation is perfect. The lateral bleeding surface no longer exists. The same manœuvres are repeated upon the other lateral section of the anterior lip. The lower lip is treated in the same way on the right and on the left. The result is the following: The bleeding surfaces on the lateral halves of the divided neck are covered in. The right lateral section of the upper lip cannot be reunited to the right lateral section of the lower lip. The left lateral section of the upper lip cannot adapt itself to the corresponding section of the lower lip. There is thus avoided a reunion of the two cervical lips. The neck remains divided to a considerable height.

The primary and separate union of the four surfaces of the lateral sections prevents the danger of infection which might appear after the operation if the bleeding surfaces are not sutured together. There is thus avoided the formation of all unhealthy tissue, and of cicatrices if the operation has been performed in accordance with the rules of antisepsis. The originality of this proceeding consists therefore in the freshening of the bleeding surfaces and in the separate reunion of the borders of each valve.

Pichevin concludes that there are some important objections to this operation. It has already been said that the cervix after the operation was a bi-lacerated cervix and consequently worthy of treatment by a double Emmet operation. Pozzi replies that it is not necessary to compare a cervix divided surgically and treated as he indicates with one torn pathologically.

In the first case the reunion is by first intention and there is no production of granulation tissue. When the cervix is torn in labor it becomes the seat of more or less marked inflammation and cicatricial tissue is formed, especially in the angle of reunion. Emmet's operation is not especially directed to the deformity of the neck, it consists essentially in the removal of the granulation tissue and reunion of the freshened surfaces.

Secondly: It may be asked, as has been suggested by Spencer Wells and Sims, whether bilateral incision does not cause eversion of the lips of the cervix. Both have observed this complication after high discission of the cervix. This ectropion is not produced by contraction of the longitudinal fibres after section of the circular fibres. Another element of capital importance should be taken into consideration—viz.: infection of the cervical mucosa.

Thirdly: A bi-lacerated cervix divided into two clearly separated lips is no longer a physiological cervix. The form is destroyed and the functions, if not profoundly altered, at least and strongly comprised.

Fourthly: There is no longer a cervical cavity. It is replaced by two grooves widely separated, true diverticuli of the vaginal canal. The cervical mucosa in direct communication with the vaginal mucosa is exposed to all the causes of vaginal infection. Thus total discission

of the intra-vaginal portion places the cervix in imminent danger of disease.

Pichevin concludes that bilateral division of the cervix performed according to Pozzi's method is indicated only in exceptional cases.

ACUTE FORMS OF GASTRIC HYPERASTHEMIA.†

According to Robin (*Le Bull. Med.*, Feb. 26, '93), the chemical study of dyspepsia, and its classification based upon analyses of the gastric juice, is of recent date. It was Leube, who in 1875, first investigated the subject. He observed in certain cases, the diminution or the defect in the hydrochloric acid in the stomach. In 1882, and then in 1884, Reichmann published his observations of two patients in whom dyspepsia was due to the presence of an excess of hydrochloric acid in the stomach. In 1884, Rossbach described gastroxynsis, which is an exaggerated secretion of hydrochloric acid, occuring not continuously as in Reichmann's disease, but in paroxysms. Since then other investigators, among them Von der Velden, Gluzinsky, and Jaworsky in Germany, G Sée and his pupils, Hayem and Winter in France, have studied the subject.

Hyperhydrochloria has no characteristic etiological, chemical, or clinical feature It may be due to a nervous trouble which may give rise to a dyspepsia without excess of hydrochloric acid, or it may be the expression of a purely local trouble of the stomach with secondary reaction upon the nervous system. Chemically, it has no characteristic feature. Hayem has noted a case where notwithstanding excess of chlorides there was not an excess of free hydrochloric acid. This condition he would call *hyperpepsia.* Again, "the hyperacidity may be due to an excess of lactic acid, or to the presence of both lactic and hydrochloric acids. This will overthrow the opinion that hydrochloric acid is an antiseptic preventing abnormal fermentation, particularly lactic acid fermentation. Finally, hyper-hydrochloria has no clinical characteristic. It is true that there exists a morbid type characterized clearly by hyper-hydrochloria, but frequently, if not always, this is associated with troubles of the muscular contractility of the stomach. Vonloir describes on the one hand a hyper-hydrochloria dyspepsia, and on the other hand a motor dyspepsia, that is separating artificially diseases eftenninseparable in reality. Hyper-hydrochloria is therefore a chemical state, a symptom, if you wish, but cannot designate a disease as the word fever, or the word cough for example.

Hypersthenia may be acute or chronic. The acute variety may present itself in three forms, as follows:

1. Acute paroxysmal hypersthenia of nervous origin.
2. Acute intermittent hypersthenia of central origin.
3. Acute intermittent hypersthenia of direct origin, that is to say stomachic or reflex.

Acute paroxysmal gastric hypersthenia of nervous origin, Rossbach's disease called by the latter gastroxynsis, a name transformed by Lépine into *gastroxia,* is the hyperacid vomiting of Rosenthal. It consists in paroxysmal association of too painful phenomena, cephalgia, and gastralgia accompanied by very acid vomiting. The crises occur at intervals more or less widely separated and are under the influence of a central neurosis. It is a much more frequent affection than is generally suffered. It is generally confounded with migraine. In the latter, however, the cephalgia predominates, while in the former the gastric state is most prominent. Then prophylatic treatment, while ineffectual in the case of migraine, is very efficacious in hyper-hydrochloria. The suppression of all intellectual work, and a sea-voyage, or sojourn in the country will suffice to cure the condition.

Acute intermittent gastric hypersthenia of central origin, that is to say, secondary to an affection of the nerve centers, is best seen in the gastric crisis of ataxia. It may be encountered in general paralysis, multilocular sclerosis, or in hysteria. It is of great importance to distinguish it, as it will help to reveal a grave affection of

† Translated for The Medical and Surgical Reporter, by W. A. N. Dorland, M.D.

the nerve centers the existence of which had as yet been unrecognized. Sahli was the first to notice hyper-hydrochloria in the gastric crises of ataxia. Bouveret and Boas recognized the condition after him.

Intermittent gastric hypersthenia of direct origin (*stomachic or reflex*) originally in the stomach. There are two varieties, the one stomachal or alimentary, the other reflex or periodic. The former is a simple variety, since all that is necessary to meet the condition is a hygienic regulation of alimentation to avoid a return of the condition. In the reflex or periodic variety the conditions are otherwise. The origin of this form may be in the aorta, heart, uterus, or liver. It is characterized by anorexia during the crisis. The vomitings are frequently over acid, and constipation is the rule. An important symptom is acceleration of the pulse at the height of the crisis. Another characteristic is the abrupt onset and cessation of the attack. Robin in the treatment of this variety orders the following:

℞ Magnes calcinel..... o gr. 60
Coarse powdered opium .... o gr. 02
Bismuth subnitrate ..... o gr. 30
After each meal in a cachet.

The prophylactic treatment consists in the treatment of the diseased organ.

ABSTRACTS.

SLEEP AND ITS DISTURBANCES IN CHILDREN.

Of all the attributes of human beings, sleep is the one that dominates them most tyranically. Its deprivation is the cause of the greatest suffering, its presence is nature's most precious gift. During activity of the body and mind it is that the most destructive changes go on in the body, and during repose and rest that such changes are repaired, and so it follows that just in proportion as is the tearing down so must be the building up.

IMPORTANCE OF PERIODICAL REST.

The necessity for sleep varies in different nations, in different people, in different ages and in various other ways. The amount of sleep necessary for an infant is more than double that required for an adult, and this is accounted for by the purely vegetative existence a child lives during the first few months of its life. As it grows older and the ability to acquire ideas is given to it, the necessity for sleep is less manifest. For instance, a new-born babe should sleep continually while it is not feeding, while at one year of age fourteen hours of sleep are quite sufficient.

Although disturbances of sleep are of not so frequent occurrence in infancy as at a later period, their advent at this age is one of the most serious drawbacks to the preservation of health. As a general rule, it may be said that a child who sleeps well, eats well, and thrives vigorously, is able to resist the occurrence and inroads of disease; while, on the other hand, the child who sleeps insufficiently is apt to be peevish, irritable and nervous during the day, and its health become seriously disturbed as the consequence. Such children are easy victims of current diseases.

WHAT CAUSES SLEEP?

For a long time it was thought that sleep resulted because there was an excess of blood in the brain, a blocking up and sluggishness of the circulation as it were; but this idea was long ago exploded, and now all physiologists agree that the underlying factor in the occurrence of sleep is a diminished amount of blood sent to the brain under a diminished amount of pressure. This has been proven in many ways.

The special senses are of the highest development and organization, and it is here, by the cessation of their function, that the diminution in the quantity of blood is first made manifest. For instance, we know that one of the easiest and most certain ways of inducing a state of drowsiness is by tiring some one of these special senses, such as sight and hearing. A practical manifestation of this is seen every day in the nursery where the singing of a lullaby quickly im-

presses the hearing of the babe, and sleep is the result. It is seen in another way in sleep that is induced by the ill-advised habit, more in vogue formerly than at present, of rocking. Those who have sat by a cradle and watched an infant from the time it is first put in until it is asleep have noticed that at first it lies with its eyes wide open, and, while it rolls from one side to the other with each swing of the cradle, its eyes travel over a large area, but do not dwell on any one spot sufficiently long to have its little mind impressed; in this way its brain becomes fatigued with a good deal of rapidity, and sleep rapidly follows.

One is often surprised to see the rapidity with which young children drop off into sound sleep, but it is a simple exemplification of their weak powers of attention, and anything which diminishes this attention induces sleep. After the mind has been strained or excited in one particular direction and the reaction follows, sleep comes on very quickly.

AIDS TO SLEEP.

Knowing, then, that this condition of the circulation is the *sine qua non* of sleep, means should be taken to facilitate its occurrence and to remove any obstacles that might hinder it. In this way attention should be given to the temperature of the sleeping room, the position of the head, the amount of pillow and covering, and the position the child should occupy. It is unnecessary to say that the night dress about the neck should be sufficiently loose, so as not to offer the slightest degree of constriction, and it should be made of flannel or silk. The pillows should not be too soft, and of only a moderate height. A slight elevation of the head contributes to bring about the desired condition as regards the circulation in the brain; while, on the other hand, if the head be too high, the heart must work harder to pump the blood in, and therefore it will enter with a greater degree of force—an undesirable result.

Regarding covering, it is here that mothers err most often. It is no uncommon occurrence to have a child put to bed with no more covering in the night than it had in the shape of clothing during the day. Yet during the night the window is probably open, the temperature of the body has dropped from $\frac{1}{2}$ to one degree, and the vital functions are all at a lower ebb than they were during the day. Of course, combustion is at the bottom of all heat production, and in the human body it is the combustion of the food stuffs with the oxygen that is taken in at every respiration which results in the formation of animal heat. The process of combustion goes on mostly in the blood; and as the circulation of the blood is slowed in sleep, as has already been pointed out, it will be readily seen that less heat is manufactured during the night than during the day; and it follows that greater precautions should be taken for the conservation of the bodily heat during the former than during the latter. As a matter of fact, however, this is often neglected. It matters very little what the temperature of a sleeping apartment is, so long as it is not above 55 degrees, and providing that when it is cooler the cold air is prevented from coming in too direct contact with the child's body, and thus causing too rapid radiation of heat.

Of course, there is such a thing as putting on too much covering at night, but the danger is more apt to be that there is too little than too much. An excess of clothing has a tendency to increase the calibre of the blood-vessels, and, therefore, to allow of a larger accumulation of blood in any of the organs, and particularly those more directly in contact with the pillow and the bed, viz., the head and spinal cord. This, therefore, should be looked after.

A moderate degree of warmth predisposes to continual and undisturbed slumber. A child put to bed in a moderately cool room and with sufficient covering to keep it comfortable while the temperature of the room remains the same, will sleep on undisturbed. Toward morning, however, when the mercury falls considerably, the cold air will stimulate a greater activity of the heart and respiration in order to obtain the necessary elements for the manufacture of bodily heat, and the results are that more blood is sent to the brain, and the child awakes. This is a conservative process on the part of Nature to prevent us from taking cold. If the stimulus is not of sufficient intensity to cause complete awakening, it will result in sufficient blood being sent to the brain to call some of its functions of intelligence into activity, and the results are

dreams, denoting imperfect slumber and restlessness. It is not at all necessary that the entire surface of the body should be exposed to the cold in order that these influences may be transmitted to the brain; frequently it results from cold hands and feet alone, and occasionally from other forms of irritation. Intense heat will do the same thing, and such is the cause of early wakefulness in summer when the thermometer indicates a high degree even in the early morning.

As regards the position of the body most conducive to normal slumber, it may be said that young children sleep best when on their back, but as they grow older they should be accustomed to sleeping on the right side. The right side is to be preferred to the left on account of the heart and stomach being on the latter side, and pressure on either one is not always borne without remonstrance.

Too much care cannot be expended in getting perfect ventilation for children's bedrooms. Such perfect renovation and restoration of the tired and wasted parts goes on during sleep that it is a pity to hamper this beneficent influence by stinting the amount of fresh air. When the ventilation is perfeet the child awakens chirping and bright, and is full of activity and life, for the reason that during the night all the waste products of the system, the result of the previous days activity, have been eliminated from the system. If, on the other hand, the access of fresh air has been imperfect, the child arises peevish and unrefreshed, and a continuous recurrence of this will soon result in manifestations of ill health.

COMMON DISTURBANCES OF SLEEP.

The most common disturbances of sleep in infancy are night terrors, insomnia, nightmare, dreams and sleep-walking or, as it is technically called, somnambulism; and of these the most painful and distressing to witness is the first named. Insomnia, which in later life becomes so troublesome is comparatively rare in infancy. Children who suffer from night terrors are generally weakly and delicate, and frequently of nervous parents. They are rarely strong and robust and often are troubled with some disorder of digestion, although sometimes this disturbance occurs in children who are generally otherwise quite well.

The attacks ordinarily come on in a very abrupt manner. The child has been put to bed apparently well, and after sleeping from one-half to two hours, suddenly starts up with a most terrifying shriek, accompanied by gestures indicating that he sees something which is repulsive and is frightening him. The eyes may be wide open and staring; he calls loudly for his mamma or nurse, but when they approach he does not recognize them, and perhaps struggles to get away from them. Soon a profuse perspiration appears, and after a variable time, lasting from a few minutes to an hour, he begins to recognize his surroundings, and frequently, without becoming thoroughly awakened, he nestles up in his mother's arms and sinks into a peaceful slumber like the one from which he was aroused. Sometimes, when thoroughly awakened, he can give no idea of what frightened him, and, if old enough to talk, seems to be somewhat reticent about mentioning it; then after passing a large quantity of urine he quickly goes to sleep. Often these children while in attack will make gestures as if warding off some repulsive or dangerous object, and, again, will cower in the corner or under the bed as if endeavoring to escape some imaginary foe. Frequently when the mother or nurse attempts to soothe them they will continue to struggle in efforts to escape. These attacks recur at varying intervals, frequently not more than once a week, and it is very rare for a child to have more than one attack in the same night.

When we attempt to trace a direct connection between the attack and some immediate cause we often find that it is impossible. Occasionally the child may have had a fright, or has been punished, or has gone to bed with an over-filled stomach, but ordinarily none of these factors will be present. Teething has been thought to be a cause, but these attacks are most apt to occur between the ages of two and six years of age, a period when the first teeth have already appeared and the second are not due. In some instances there is no doubt but that the appearance of an attack may be due to the most barbaric custom of telling blood-curdling ghost stories, and particularly from a nurse filling the mind of a child with the idea that goblins are standing ready at the gates to carry it away and

subject it to the most inconceivable sorts of punishment if it does not go to sleep right away; as a consequence such children are frightened into sleep, but the impression made by the threat is still rankling in their unconscious thoughts and it starts a mutiny in the otherwise well-regulated brain. Ghost stories are most pernicious at their best, and even when told to adults; but when told to nervous, irritable and easily excitable children, it is little less than manslaughter. The degree of suffering which such children endure when left alone or placed in a dark room is hardly conceivable.

Fortunately, the occurrences do not lead to any more serious disorder and are quite amenable to ordinary domestic treatment. It is unnecessary to state that the cause for an attack should be sedulously looked for, and, when found, removed at once. Such children should have a very light supper, from which meats must be absolutely excluded and likewise sweetmeats, for there can be but little doubt that these are often potent factors in causing an attack. If the child has been noticed to breathe through the mouth while sleeping, or if he snores, his tonsils should be examined, and treated if enlarged, or if he has symptoms of catarrh. In the same manner constipation, if it exists, should be overcome by the administration of a teaspoonful of rhubarb and soda mixture when the child goes to bed. If during or before an attack the child wets the bed, the nurse should be instructed to awaken him on the following nights and take him out in anticipation. Such a child should be given a cold sponge bath every morning the year through, followed by a thorough rubbing down with a crash towel until the skin is of a scarlet red all over; he should then be warmly but lightly clad and encouraged to get moderately tired by playing in the open air. If he has a tendency to take cold easily, this is the best indication that he is not assimilating sufficient fatty foods, and small doses of cod liver oil should be given after each meal.

It has often been suggested that these children when they have an attack of night terrors be dipped into cold water to cause their terrors to end; but this cannot be recommended. They should, on the contrary, be soothed in every way possible, and an endeavor made to call into activity the higher parts of the brain, and so get completely aroused.

It is needless to say that, if the attacks are due to any condition of depraved health, such will need scrupulous attention from a physician; but attention to the diet and the hygiene of the sleeping apartment will prevent the recurrence in a large proportion of the cases. From the fact, as already stated, that these attacks are more apt to occur in patients who are nervous and irritable, measures should be taken to discipline their minds at the same time with their bodies, and so restore the stability necessary to both.—*The Mother's Nursery Guide.*

Amusing Ingratitude.

It is often said that physicians are well used to ingratitude, but perhaps they could bear the unpalatible draught with composure if it were always as amusingly presented as in the following case:

Dr. J. M. Warren had been in the habit for a number of years of giving professional advice to a lady in reduced circumstances, whom he regarded as hardly able to offer him any compensation.

At length she ceased consulting him and he did not see her for a long time. Finally, happening to meet her in the street, he said to her:

"Why, Mrs.——, what has become of you? You haven't been near me for months."

"Well, the fact is, Dr. Warren," she said with all simplicity, "I didn't seem to gain very much and I thought I'd consult a paydoctor."

Hysterical Female.

We blistered her back; at her rectum we whacked,
'Thout finding the lesion that ailed her;
We rubbed down her spine till the skin it did shine,
And all our kind service but failed her.

With pill and with powder we often did crowd her,
But she cried the louder: "Give something more strong!"
We doubled our blisters, gave capsicum clysters,
'Twas always this: "Misters, you're all in the wrong.

"Can't you use your big spectrum and look at my rectum?
You can cure me if ever you try;
Or give an injection after my own direction,
If you don't I will certainly die?"

—*Daniel's Med. Jour.*

CURRENT LITERATURE REVIEWED.

THE AMERICAN GYNECOLOGICAL JOURNAL

For February. Dr. H. W. Longyear contributes a paper on

Peritonitis,

reporting two cases: the one treated by the old method of opium with the result of the masking of all symptoms and death on the third day, the post-mortem showing purulent peritonitis due to the rupture of a small ovarian abscess; the second case, presenting analogous symptoms, recovered promptly under modern surgical treatment. Taking these two cases as his text, the author reviews the causes of peritonitis and the results of the treatment by opium and those obtained by the opposite course of free purgation and the resort to surgical measures where necessary. He unhesitatingly advocates the latter, fully endorsing Dr. Joseph Price's dictum that "Opium has no place in the treatment of peritonitis." "The order of the day," he says, "is now purgation, causing activity in all secretions and acceleration in of the process of osmosis, resulting in the rapid elimination of the natural waste of the body, as well as of foreign septic material. The old order, that of opium, meant stagnation and locking up of secretions, thus favoring the retention of the waste and effete products of the system and the absorption of septic material." He urges on the practitioner the importance, in justice to his patient, of early counsel in every case of peritonitis. "By 'early' is meant *as soon as diagnosis is made*, and not after three or four days of experimental treatment have passed. All cases do not demand operation, but many that do, demand it early, and the golden opportunity may be lost in waiting. By 'counsel' is not meant another general practitioner, who perhaps never does surgery, and consequently can form no opinion of the surgical needs of the patient, and who is expected to see the patient but once and then do little more than to agree with all that has been done. The consultant should be selected with as much regard to the anatomical part affected as is the case in serious affections of the eye and ear, when the oculist is called. In disease of the peritoneum the need is for a man of experience in abdominal and pelvic surgery, who, by the almost daily handling of the peritoneum covered viscera of the body, is so accustomed to noting the behavior of these parts under different forms of irritation that his advice will be of practical value. He should also see the patient often with the attending physician until the critical stage of the disease has passed. By such an association of experienced counsel not only will the best interest of the patient be considered, but there will result an advantage to the attending physician, thus dividing the great responsibility that always attends this dangerous disease."

Dr. Frank A. Glascow discusses the

Treatment of Endometritis,

describing a new advice for draining the cavity of the uterus. The drain is made of a number of strands of silk worm gut the ends of which are tied together in a knot, thus forming a loop. When this is introduced above the os internum, the largest part of the loop being uppermost, it would have very little tendency to come out. The knot and ends are covered with a thin strip of guttapercha. He has used this drain for about two years and has never yet seen any bad result from its use. He would advise that the drain be kept constantly in a strong carbolic solution and that the cervix be thoroughly cleaned before introduction.

Dr. Ely Van De Warker considers the subject of

The Treatment of Chronic Pelvic Pain.

He condemns the removal of ovaries for simple pain and makes the assertion that there are many cases of pelvic pain for the relief of which it is not proper to remove the uterine appendages; and further that there are many cases of pelvic pain in which these organs are perfectly healthy, and the conclusion is logical that their extirpation could furnish no relief. He also condemns the routine use of morphia for the relief of pain, using in its place codeia, which, however, he reserves for what he terms severe pain. He states that it is not open to the same objections as morphia. He speaks in high praise of viburnum, especially in combination with pulsatilla. Aletris farinosa is another of the milder pelvic sedatives which has a good general reputation but from his experience he doubts if it can be relied on to overcome a painful state of any of the pelvic organs. It serves a more useful purpose when given in combination. Belladonna is a very powerful pelvic sedative but must be used with caution. The sitz bath and the hot douche are valuable agents when properly employed. He also advocates the use of what he terms the combined douche. "With the patient lying, she is given a vaginal irrigation of about fifteen minutes with water at the 110°. This current is shut off and one of 70° substituted. The theory of its use is to produce a marked shock upon the arterial circulation of the congested organs. If a contrast of 40° is too great it may be lessened by giving the initial douche at 95° to 100°." "As a method of controlling painful pelvic conditions the effect of properly adjusted manipulation of the parts within the pelvis must be overlooked. This is sometimes called massage, but if by that term is meant any of the indescribable manipulations known as Brandt's method the term is misapplied." Two objects must be in view; first to break up, or to cause the absorption of adhesions between the intrapelvic parts. Secondly, to relieve the venous engorgement that results from want of exercise or the immobility caused by adhesions. Tampons of lamb's wool he

has often found of benefit where it is desirable to diminish the blood supply in the lower uterine segment. The use of the bromides is emphatically condemned. He concludes with the advice not to treat tubal disease with any of the methods detailed in the paper. As a rule, a tube filled with pus or any other fluid accumulation, has but one remedy, and that is its removal by laparotory. It ought to be removed early before the health is broken down. Especially is electricity not to be employed in any form of distended tube with the idea of curing it.

Dr. J. C. Sexton reports a case of

Moya Complicating Pregnancy.

The patient was delivered of a child at the sixth month. The third stages of labor being accompanied with a very severe post partum hemorrhage. Three months later the tumor was removed by supra vaginal hysterectomy. The symptoms and prognosis of these complications are considered as is also the differential diagnosis.

Dr. Charles N. Smith contributes a paper on "The Natural History of Gall-stones," discussing the various theories as to their formation and also the symptoms and diagnosis of the affection.

THE CANADIAN PRACTITIONER

For April. Dr. W. B. Thistle contributes a paper on

The Eliminative and Antiseptic Treatment of Typhoid.

If it be conceded that typhoid fever is the result of the location and growth in the body of a specific form of bacterium, the question is, can we by any form of treatment get rid of any portion of the poison already formed; prevent, to any extent, the production of further poison; limit, to any degree, the action of the poison already in contact with the tissues? The author is of the opinion that by the adoption of a plan of treatment which combines free elimination with antisepsis these several results will be obtained. His plan of treatment is to combine the use of purgatives with some one of the various antiseptics—salol, thymol, naphtol, sallcylate of bismuth, etc. In his practice he has employed calomel for the purgative (though he believes the salines would answer as well) and salol for the antiseptic. The patient is also given plenty of water in order that the poison may be eliminated by the kidneys. He believes this treatment not to be dangerous to the patient and reports a number of cases to prove his theories. He holds that purgation does not increase the risks of perforation of the intestines but rather diminishes that risk. Under the treatment patients rapidly improved and the disease seemed to assume a milder form.

L. M. Sweetnam, M. B., discusses

The Treatment of Varicose Veins of the Lower Extremities.

The causes, symptoms and various forms of this disease are thoroughly entered into. The operative treatment by the ligature and by excision receive especial attention. The author urges excision as the best procedure in well-selected cases calling for so called radical treatment.

Dr. Hunter Robb contributes an abstract of Prof. Gusserow's article in *Arch. fur Gynecologic*, on "Ascites in Connection with Gynecology."

A. McPhedran, M. B., reports a "Tubercular Cyst of the Peritoneum, Simulating Hydatid Cyst of the Liver."

SELECTED FORMULÆ.

In cases saturated with the approved remedies, but still presenting patches on the skin and mucous membranes.

℞ Acidi nitro-muriatici diluti..... ʒij
Sprupi stillingiae compositi ..... ʒxiij ss
Aquae destillatae..... ..... ʒij
M. Sig. Dose, one to two teaspoonfuls three times a day, with denutrition.

—*Bartholow.*

Paralysis.

In the dihptheritic paralysis; in local paralysis, such as facial, of the vocal cords, in lead palsy, paralysis of the sphincters ani and vesicæ; also in paraplegia when no structural alteration of cord, and in long-standing cases of hemiplegia, Bartholow uses:

℞ Strychninae sulphatis..... gr. j
Aquae destillatae ..... ʒx
Fiat solutio..... .....
Sig. For hypodermic use. Ten minims contain 1-60 gr. of Strychnia sulphate. Inject in substance of paralyzed muscle.

Pleurisy.

In chronic pleurisy with consolidation of lung Prof. Da Costa orders:

℞ Potassii iodidi..... ..... ʒij
Tincturae scillae ..... ʒvj
Tincturae opii camphoratae..... ʒiss
Misturae acaciae .. .. ʒvj
M. Sig. A teaspoonful four times a day.

Or in dry pleurisy,

℞ Morphinae acetatis..... ..... gr. ss
Potassii acetatis..... ʒss
Tincturae veratri viridis mx..... xxiv
Syrupi talutani..... ʒss
Liquoris potassii citratis..... ʒij ss
M. Sig. Two fluid drachms every three hours.

Lumbago.

Instantaneous remedy:

℞ Collodion.....
Tincturae iodi .....
Lig. ammon. (equal parts of each)..
Apply freely over the parts affected with a camel's hair brush and instantaneous relief will be afforded.

—*Ex.*

Otorrhœa.

Antiseptic wash in the treatment of otorrhœa.

℞ Hydrar bichlor..... gr. ss
Acid tartaric..... gr. xx
Aquae, q. s. ad..... ℥xj

M. Sig. Wash out the ear first with warm water then fill the ear with the above solution.

—*Amer. Jour. M. Sc.*

Carbuncle.

The following, says Buxton Shillitoe, will sometimes abort a carbuncle or boil if applied early.

℞ Extract opii..... ℥ss
Glycerinae, q. s. nt. fiat. magma..

M. Sig. Smear thickly over the swelling three or four times a day; then apply

℞ Pulveris opii.....
Ungnenti hydrargyri.....
Saphonis durae āā..... ℥ss

M. Sig. Apply spread on think leather.

Rheumatism, Chronic.

℞ Pulveris guaiaci resinae.....
Potassii iodidi āā..... gr. x
Tincturae colchici seminis..... ℥ss
Aquae cinnamomi.....
Syrupi simplicis, āā q. s. ad..... ℥j

M. Sig. A desertspoonful to a tablespoonful thrice daily.

—*Philadelphia Hospital.*

Dr. Gerhard recommends as quite an efficient liniment the following.

℞ Chloroformi.....
Tincturae aconiti radicis.....
Alei terebinthinae, āā..... ℥ ss
Alei sassafras..... m. v.
Linimenti saponis camphorati..... ℥ij ss

M. Fiat linimentum.....

Cutaneous Diseases.

Nothing is better says A. T. Thomson, to alloy itching in cutaneous diseases than

℞ Plumbi acetatis..... gr. xvj
Acidi hydrocyonici diluti..... ℥iss
Spiritus rectificati..... ℥ij
Aquae destillatae..... ℥vii ss

M. Fiat lotio.

Seatworms.

℞ Hydrargyri chloridi mitis..... ℈iv
Ungnenti petrolei..... ℥vj

Sig. Amount anns and vulva.

—*Valleix.*

Cholera Infantum.

For a child one year old.

℞ Argenti nitratis..... gr. i
Acidi nitrici diluti..... mx
Tinct. opii deodoratae..... mx viij
Mucilaginis acaciae..... ℥ss
Syrupi simplicis..... ℥ss
Aquae menthae pip..... ℥i

M. Sig. One teaspoonful every three, four or six hours.

—*W. H. Bricker.*

Syphilis.

℞ Hydrargyri biniodidi.....
Potassii iodidi.....
Aquae destillatae.....
Syrupi simplici.....

M. Sig. A tablespoonful thrice daily.

—*Hospital Saint Louis.*

Neuralgia.

℞ Strychninae sulphatis..... gr. j
Morphinae sulphatis.....
Acidi arseniosi āā..... gr. iss
Extracti aconiti..... gr. xv
Quininae sulphatis..... ℥i
Misce et. fiant pilulae No..... xxx

Sig. Take one pill three times a day.

—*S. D. Gross.*

Earache.

The following rarely fails to give prompt relief:

℞ Tincture aconite radicis..... ℥iss
Glycerini..... ℥ii ss

M. Sig. To be warmed and dropped into the ear.

—*Gerhard.*

For Excessive Thirst in Diabetes.

℞ Pilocarpinae nitratis..... gr. iii
Spiritus tenuioris..... ℥i
Aquae ad..... ℥ss

Sig. Four or five drops on the tongue twice or thrice daily.

—*The Practitioner.*

Chloral in the Treatment of Boils.

M. Sphen recommends very highly, as far superior to all other treatment, the use of chloral externally in this troublesome class of affections. He directs that the boil be kept covered with a tampon of cotton-wool soaked in the following solution:

℞ Chloral hydrat..... ℥ iiss
Aquae.....
Glycerin āā..... f ℥ v

Misce.

—*Bull. Gen. de Therap.*

Chilblains.

℞ Carbolic acid (white)..... 1 drachm
Tannic acid..... 1 drachm
Tincture of iodine..... 2 drachms
Vaselin (albolene)..... 4 ounces.

M. Sig. Apply to the affected part three or four times a day.

—*Doctor.*

An Agreeable Salicylic Mixture

℞ Potassii acetatis..... ℥ii
Acidi salicylici..... ℥ss
Syrupi limonis..... ℥ii
Aquae menthae piperitae ad..... ℥viii

Sig. One tablespoonful every three hours.

—*The Practitioner.*

Swollen Eyes.

If the eyes are swollen, use on them:

℞ Acid boracic..... 12 grains
Aquae camphorae..... 2 ounces
Aquae Dest..... 2 ounces

M. Sig. Bathe and drop in the eyes frequently.

—*Ex.*

For Chronic Eczema.

℞ Acidi salicylici..... gr. xxx
Zinci oxidi..... ℥vi
Pulveris amyli..... ℥vi
Vaselini..... ℥iss

Sig. The paste to be applied daily, not to be washed or rubbed off.

—*Ex.*

PERISCOPE.

THERAPEUTICS.

The Influence of Massage upon the Rapidity of the Absorption of Therapeutic Substances.

The author has observed the rapidity of the absorption of toxic substances in dogs under the influence of massage. and has obtained the following results, which we analyze briefly:

1. Massage made in the direction of the heart accelerates the absorption of the liquid substances introduced beneath the skin.
2. It augments considerably the effect of these substances. From a therapeutic standpoint this fact is of great importance, as a small dose of a medicament associated with massage may yield the same results as a larger dose without massage.
3. The longer the massage is continued the more rapidly are the effects manifested.
4. The quantity of the injected fluid has no marked influence upon the rapidity of the absorption during the massage.
5. Massage of the corresponding portion of the opposite side of the body has no influence upon the rapidity of the absorption.
6. Massage produces a dilatation of the blood vessels of the organ to which is is applied.
7. When the sciatic nerve is divided, the liquid which is injected below the point of the section is absorbed with greater rapidity.

The influence of massage upon absorption is not due to the production of vascular constriction or dilatation owing to the irritation of the peripheral nerves. The dilatation is produced mechanically, and the blood of the region being forced into the general circulation, more rapid absorption results.—*Therapeutic Review.*

MEDICINE.

Paraldehyde.

Mackie in the *British Medical Journal* refers to a series of cases of asthma in which paraldehyde stopped the spasm and produced sleep. Some of the cases were of long standing. Thirty minims were given every hour or half hour until relief came. Three doses were generally sufficient. In children a smaller dose should be given.—*Brooklyn Med. Jour.*

Cautionary Facts.

1. Drugs by the rectum or vagina should be given in *three* (3) times the dose by the mouth.
2. Drugs by the hypodermic method should be given in *one-sixth* (1-6th) the dose by the mouth.
3. Be cautious in giving *atropia* to flaxen-haired, light-complexioned, nervous women.
4. Be cautious in the use of *morphia* subcutaneously after opiates or morphia have been given by the mouth or rectum.
4. *Chloral Hydrate* should be exhibited with great care.
6. Remember that children are especially susceptible to the narcotic action of opium and its alkaloids.—*Dr. King's Medical Prescriptions.*

Diabetes Following Extirpation of the Pancreas.

Minkowski has found that not only in dogs, but also in cats and pigs, a severe form of diabetes mellitus follows the entire extirpation of the pancreas. In birds this does not occur. In order further to show the special function of the pancreas, the author, after removing the pancreas from the abdominal cavity, has transplanted pieces of it under the skin of the abdomen. By so doing the appearance of the diabetes is checked, even after the entire removal of the pancreas from the abdomen; but if the transplanted pieces are subsequently removed diabetes soon appears.—*New York Med. Times.*

Indications for Intubation.

Scheniegelow, E. (*Jour. Lar., Rhin. and Otol*).

1. Cases of acute stenosis due to œdema of glottis.
2. Cases of diphtheria causing acute stenosis, when time not sufficient to perform tracheotomy.
3. When consent cannot be obtained to do tracheotomy.
4. In paralysis of abductors and in spasms of abductors.
5. In cases of acute stenosis from thyroiditis.
6. All cases of chronic stenosis.

Also intubation is an allowable procedure in all cases of acute stenosis of diphtheria.

On the Arsenical Treatment of Multiple Sarcomatosis of the Tegumentary and Mucous Surfaces.

The author reports the case of a young girl who had hard, transparent nodosities at the end of the nose, the angles of the eyes, upon the cheeks, the mucous surfaces of the lower lip, the palatine vault and the uvula. She had also numerous tumors in the thickness of the skin of the arms, varying from the size of a lentil to that of an almond. Pyrogallic ointment produced an amelioration which was followed by recurrence. The nodosities multiplied, their surface became tuberous and the superficial ones threatened to fungate. The spleen was very large. Under the influence of arsenical medication these tumors disappeared almost entirely—*Therap. Review.*

SURGERY.

The Present Position of Gall-Bladder Surgery.

Czerny, after a general consideration of gall-bladder surgery, presents the following conclusions:

1. Gall-stones require operation, if they cause frequently repeated or lasting trouble.
2. Empyema of the gall-bladder imperatively demands operation, as does hydrops, if it gives serious trouble.
3. The typical operation for gall-stones consists in incision, removal of the stones, and suture of the gall-bladder; in this, however, the abdominal wound should be drained for a short time.
4. If the cystic duct is closed, if the gall-bladder is the seat of inflammation, or the contents are greatly altered, then a temporary gall-bladder fistula must be made.
5. Extirpation of the gall-bladder is indicated only in cases of severe inflammatory carcinomatous involvement.
6. When the ductus choledochus is closed, the operation is absolutely indicated, if the strength of the patient will permit. If one does not succeed in removingthe stone or obstruction, then it is recommended to produce a fistula between the gall-bladder and duodenum.
7. The best incision for gall-bladder operations is an ⌋ shaped cut; the vertical limb lies in the linea alba, and the horizontal part runs towards the right, just below the level of the umbilicus.
8. The danger to life of gall-stone operations will be probably less than in operations for vesical calculus.—*Epitome of Medicine.*

Watson (Francis Sedwick) on the Treatof Bubo.

This paper is a plea for the treatment of bubo by excision, and the subsequent attempt to obtain primary union.

Twenty-two buboes were treated, and in ten, a little less than one-half, perfect union by first intention resulted.

As regards the technique of the operation, the most important points are as follows:

1. To remove thoroughly all diseased tissue, and to leave, as far as possible, a perfectly healthy surface in every part of the wound.
2. To remove all portions of the skin, which are, or threaten to become necrotic.
3. To curette the under surface of the skin flaps.
4. To thoroughly swab the whole surface with dry sterilized gauze or sponges wet with a solution of corros. subl. 1.4000.
5. To tie, as far as possible, the end of all lymph vessels that have been divided.

The author considers this last point of especial importance, and one which has not hitherto been attended to. If not ligated, these vessels pour into the wound a large amount of fluid which lifts up the flap and lessens the chance of primary union. These vessels closely resemble cutaneous nerve branches, but are distinguished from them by having a distinct lumen, from which clear fluid exudes, and are of a more yellowish color, and present a duller surface.—*Jour. Cut. and Ver. Dis.*

GYNECOLOGY.

The Significance of Vaginal Discharges.

A leucorrhœa inodorous or of mild odor persisting during the climacteric, accompanied by increasing hemorrhage, is suspicious, and demands investigation.

A leucorrhœa profuse, of peculiarly fetid odor, grumous, excoriating, appearing early or late during the climacteric, with profuse hemorrhage, is reasonable evidence of cancer of the cervix.

A leucorrhœa moderate in amount, ill-smelling (the peculiarly fetid odor of cancer of the cervix being absent), accompanied by hemorrhage, suggests cancer of the corpus uteri.

A leucorrhœal discharge with hemorrhage containing material like the washings of meat, is said to indicate sarcoma.

A watery discharge, as a rule, occurring during menstruation, odorless or of little odor, persisting, accompanied by profuse hemorrhage, indicates fibroids; with little or no hemorrhrge, polypi. Profuse bloody discharges coming on gradually with declining menstruation, ceasing usually with the menstrual flow, point to fibroids. Persistent profuse discharges of blood occurring spontaneously, arising from sudden exercise or coition, occurring; as a rule, after the menopause, indicate cancer.

A gradually increasing amount of menstrual flow is suspicious and needs investigating. "Post-climacteric hemorrhages in a fibroma of the uterus of long standing, form one of the principal grounds for the suspicion of sarcoma." (Borner.)

The early recognition of malignant disease and the possible prevention of that fatal exhaustion which accompanies it by the administration of drugs, and the application of those methods which, in a measure, may be supposed to offset the terrific drain on the nervous system, inasmuch as present experience shows that early removal of diseased tissue prolongs life, and the importance of early diagnosis and treatment can hardly be over estimated.—*N. E. Med. Gazette.*

The Decidua in the Diagnosis of Extra-uterine Pregnancy.

Ayers from microscopical studies of the normal and diseased endometrium, reaches these conclusions: In cases of ectopic gestation the endometrium is usually transformed into decidua. This decidual tissue is pathognomonic of pregnancy. It may be removed with the curette for examination under the microscope, which, however, merely reveals the presence of the characteristic cells. The clinical history will then determine whether the condition is intra- or extra-uterine pregnancy.—*Amer. Jour. Obstetrics.*

NEWS AND MISCELLANY.

The Pan-American Medical Congress.

The Section in Marine Hygiene and Quarantine has been organized as follows: Honorary presidents: Dr. Lino Alarco, Lima, Peru; Dr. Henry B. Baker, Lansing, Mich.; Dr. Cardenas, Managua, Nicaragua; Dr. J. J. Cornilliac, St. Pierre, Martinique, F. W. I.; Dr. Felix Formento, New Orleans; Dr. H. B. Horlbeck, Charleston; Lieutenant Colonel Amalio Lorenz, Sub-inspector of second class Spanish Navy, Havana; Dr. F. Montizambert, Quebec, Canada; Dr. Francisco Nunez, St. Tecla, Salvador; Dr. Juan Ortego, Guatemala, Guatemala; Dr. Joseph Y. Porter, Jacksonville, Fla.; Dr. John Pringle, Kingston, Jamacia; Dr. Juan J. Unoa, San Jose, Costa Rica; Dr. J. Mills Browne, Surgeon General, United States Navy. Executive president: Dr. Walter Wyman, Surgeon General, United States Marine-Hospital Service, Washington. Secretaries: Dr. S. T. Armstrong (English-speaking), 166 West Fifty-fourth Street, New York; Dr. G. M. Guiteras (Spanish-speaking), United States Marine-Hospital Service, Washington. Advisory Council: Dr. H. M. Biggs, New York City; Dr. John C. Boyd, United States Navy; Dr. H. R. Carter, Norfolk, Va.; Dr. W. M. L. Coplin, Philadelphia; Dr. A. G. Clopton, Galveston, Texas; Dr. C. G. Currier, New York; Dr. S. Durgin, Boston; Dr. Seneca Egbert, Philadelphia; Dr. George Homan, St. Louis; Dr. W. T. Jenkins, New York; Dr. J. F. McShane, Baltimore; Dr. G. H. F. Nuttall, Baltimore; Dr. S. R. Olliphant, New Orleans; Dr. Dabney Scales, Mobile; Dr. R. M. Swearingen, Austin, Tex.

The executive president desires to call the attention of all members of the medical profession that are interested in the topics pertaining to this section to the regulation of the congress, that contributors are required to forward, not later than July 1st, to the secretary of the section, abstracts, not to exceed six hundred words each, of the papers they propose to present before the section.

The topics that will be considered by this section are as follows: 1. The hygiene of vessels, commercial or naval, including the questions of ventilation, heating, sanitary arrangements, the disposal of cargo so as to facilitate disinfection, food supply, etc. 2. The medical officers of passenger vessels; methods for their selection, duties, etc. 3. The vital statistics of seamen and firemen. The question of the medical examination of crews preparatory to shipping. 4. The supervision of vessels by government medical inspectors at ports of arrival and of departure. Code of rules for handling an epidemic disease that breaks out on shipboard. Disinfection of passengers and crew during a voyage. Location and arrangement of ships' hospitals. 5. Epidemic and exotic diseases propagated by shipping. What diseases should be quarantined. Responsibility of nations for epidemics; India for cholera, South America for yellow fever. Can a feasible plan be devised to totally exterminate cholera? International intervention to prevent the propagation of cholera and other epidemic diseases by pilgrimages or immigration. 6. International uniformity in quarantine regulations. Should quarintine officers be notaries public? 7. Arrangement of detail and equipment of quarantine stations: *a*, inspection stations; *b*, local quarantine stations; *c*, refuge stations. Methods for handling infected or suspected vessels. Interstate and inland quarantine: sanitary cordons; camps of refuge; camps of probation. Recent improvements in hospitals for infectious diseases. Railroad inspection and quarantine. Length of time vessels should be held in quarantine. Conditions that should determine proclamation of quarantine against a country. Under what requirements may passenger traffic be carried on between a port infected with yellow fever and a Southern port of the United States during the summer with the least obstruction to such traffic? What merchandise should be considered as requiring treatment if shipped from a port or place infected with cholera, yellow fever or small-pox? 8. Methods of disinfection: *a*, persons; *b*, baggage; *c*, cargoes; *d*, vessels. Recent improvements in quarantine appliances; steam chambers; sulphur furnaces. Liquid sulphur dioxide as a disinfectant. Treatment of ballast: water; solid. What time should a disinfected vessel be detained in quarintine? *a*, for cholera; *b*, for small-pox; *c*, for typhus fever; *d*, for plague; *e*, for yellow fever. Methods of disposal of the bodies of those who die while in qurantine.

ARMY AND NAVY.

U. S. ARMY, FROM APRIL 30, 1893, TO MAY 6, 1893.

A board of Medical Officers to consist of Lieutenant George M. Sternberg, Deputy Surgeon General; Lieutenant Colonel William D. Wolverton, Deputy Surgeon General; and Major Joseph R. Gibson, Surgeon, is appointed to meet at West Point, N. Y., June 1, 1893, or as soon thereafter as practicable, for the physical examination of the cadets of the graduating class at the U. S. Military Academy, and such other cadets of the academy, and candidates for admission thereto as may be ordered before it.

By direction of the acting Secretary of War, leave of absence for three months and fourteen days is granted Major John H. Janeway, Surgeon U. S. Army.

Captain Henry S. Turrill, Assistant Surgeon, U. S. Army, ordered to report in person to the president of examining board at Omaha, Nebraska, for examination, with a view to determine his fitness for promotion as contemplated by the act of Congress, approved October 1, 1890.

Colonel Charles T. Alexander, Assistant Surgeon General is detailed as a member of the Army Medical Board, vice Colonel Charles H. Alden, Assistant Surgeon General hereby relieved.

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ORIGINAL ARTICLES.

JOHN V. SHOEMAKER, A.M., M.D.
The Position of Strontium in Therapeutics. . . . 757

CLINICAL LECTURES.

DEFORREST WILLARD, M.D..
Cerebral Spastic Paralysis. 762

COMMUNICATIONS.

DR. MORDECAI PRICE, Philadelphia.
Extra-Uterine Pregnancy. 764

D. H. BERGEY, M.D., North Wales, Pa.
La Grippe or Epidemic Influenza; Results and Sequelæ. 770

JOHN V. CURRIER. M.D., Newport, Vermont.
Two Cases of Gall Stones, with Ulceration of the Gall Bladder into the Intestines. 772

SOCIETY REPORTS.

Georgia State Medical Association. 773

EDITORIAL

Medical Legislation in Georgia. 781

Fortified Against Microbes. 783

TRANSLATIONS 783

ABSTRACTS 785

CURRENT LITERATURE REVIEWED . . . 792

PERISCOPE

MEDICINE 795

GYNECOLOGY 795

NEWS AND MISCELLANY 795

ARMY AND NAVY 795

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ORIGINAL ARTICLES.

THE POSITION OF STRONTIUM IN THERAPEUTICS.

JOHN V. SHOEMAKER, A. M., M. D.*

Pharmacology.—As regards its chemical properties strontium is intermediate between barium and calcium. Though not an abundant element it is found in nature associated with both the metals mentioned. The principal native forms in which strontium occurs are the sulphate, called celestine, from its sky blue color, and the carbonate, known as strontianite from the place of its discovery, Strontian, in Argyleshire, Scotland. The carbonate was found in 1787 and was at first regarded as a carbonate of barium. Crawford, in 1790, advanced the idea that the new mineral contained an alkaline earth. Strontium was distinguished as an element by Hope, in 1792, and independently by Klaproth, in 1793. Sir Humphrey Davy isolated the metal in 1808, but owing to the faulty process which he employed, did not obtain it in a state of purity.

Strontianite is found in other places in Scotland; in Salzburg; Saxony and Westphalia; in Schoharie, New York, and other places in the United States. Calcium is often, and barium sometimes, present in this mineral. Celestine occurs in various parts of England, in the sulphur mines of Girgenti and other places in Sicily, in Hungary, Salzburg and near Paris. It is abundant in Strontian, or Green Island in Lake Erie. Celestine often contains barium or calcium.

The relation between barium and strontium is analogous to that between sodium and potassium. The strontium salts are between those of barium and calcium in specific gravity. They resemble those of barium in their physical and chemical properties. The salts of strontium are not, however, like those of barium, precipitated by silico-fluoric acid or hyposulphite of sodium. They communicate a brilliant, purple-red color to flame.

From the close association of barium with strontium, the similar composition of the mineral forms in which they occur and the parallelism between their salts it has been no easy task to procure pure salts of strontium. An admixture of barium clings to most products and it has been found especially difficult to remove the last trace of this contamination. On account both of its source and chemical relationships an investigation of the physiological action of strontium was long delayed. It was either condemned as sharing the toxic properties of barium or neglected under the supposition that its influence was comparable to that of calcium. The metal was, therefore, regarded as being only suitable for the manufacture of dyes and fireworks. It is to a French chemist, Paraf-Javal, who has been since 1886 engaged in the preparation of a beautiful strontium chromate for dyeing purposes that we owe the introduction into pharmacy of chemically

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pure salts of strontium. A delicate test for the presence of barium in a solution of a strontium salt is the addition of a few drops of a solution of the bichromate of potassium. This will reveal the presence of even $\frac{1}{2000}$ of barium and will not precipitate the strontium.

Strontium combines freely with other elements and the list of its salts is a long one, embracing, in addition to those already mentioned, the oxide, borate, phosphate, phosphite, sulphide, sulphite, hyposulphite, iodide, bromide, chloride, nitrite, nitrate, lactate, acetate, benzoate, etc. Of these the bromide, the chloride, the acetate and the nitrate are soluble in one and one half parts of water, the iodide in two parts, the benzoate in fifteen parts. The borate and the phosphate are insoluble.

Physiological Action.—It is but recently that the salts of strontium have been subjected to a careful investigation. It had, indeed, been noted by careful observers that, though the oxide of strontium is obtained in the same manner as the oxide of barium, which it closely resembles, yet the former combination is harmless while the latter is toxic when taken into the system. Gruelin, in 1824, made some experiments on rabbits and concluded that strontium and its soluble salts are perfectly harmless. In his "Handbook of Chemistry" he remarks that these salts are not poisonous unless they contain a poisonous acid. Brunton declares that strontium increases the contractile power of muscular tissue and also the duration of the contractions. He believes that these effects are increased by combination with calcium.

Our principal knowledge upon this subject is due to Dr. J. V. Laborde, Chief of the Physiological Laboratory of the Faculty of Medicine, of Paris, who conducted a series of investigations extending through a period of six months. The results were announced at meetings of the Academy of Medicine, July 21st and 28th, 1891. His experiments were made upon dogs and, in one instance, upon the human subject. The drug was introduced by means of intra-venous, hypodermic and intra-muscular injections and also into the stomach by the œsopageal sound. To a rabbit weighing only five pounds, seven and one half grains of the chloride were given with absolutely no result. On the other hand, the chloride of barium, as indicated long ago by Gruelin, Rabuteau and Orfila, is very toxic. Thirty grains of carbonate of strontium were productive of no results in a man. The lactate of strontium was given with impunity and in the dog occasioned marked diuresis. The corresponding salt of potassium possesses toxic power. The bromide of strontium is far better tolerated by the stomach than the bromide of potassium and may be given in considerable doses to man without any ill consequences. M. Chas. Féré, in an independent investigation relative toxicity of the bromides when given by intra-venous injection, ascertained that in the rabbit the bromide of potassium is about five times as toxic as the bromide of strontium. Eighteen different bromide combinations were studied by M. Chas. Féré as regards comparative toxicity. In his tabulated results the bromide of barium stands fourth in the order of toxicity, while the bromide of strontium is sixteenth, of lithium seventeenth and of sodium eighteenth.

The salts of strontium in general are like those of calcium in being innocuous although the latter may produce vomiting when injected into a vein while the former are free from this effect. Strontium increases the appetite, digestion and assimilation of animals, who gain in weight under its use. Its salts retard fermentation and putrefaction and act as intestinal antiseptics. Laborde attributes to them an anthelmintic effect upon the ground that in all his post-mortem examinations of dogs he never discovered any traces of tænia or other parasites. According to the experiments of Dr. Amand Malbec, the nitrate of strontium is a good diuretic. This writer is of the opinion that the sulphate, especially the latter, may be utilized as antiseptics, antiparasitics and restoratives.

The salts of strontium are partially eliminated in the urine and fæces but a portion is retained with the economy and deposited in the bones, liver, and, to a less extent, in other soft tissues. Though elimination begins later there is less accumulation of the bromide of strontium in the organism than of the corresponding salt of potassium.

Therapy.—Strontium is a constituent of many, if not all, mineral springs, and a portion of their beneficial influence may

probably be ascribed to this element. The bromide, the lactate and the iodide are the salts with which thus far the most numerous clinical experiments have been made. These salts, prepared by Paraf-Javal and solutions made by the well known pharmacists of Paris, are now upon the market, the agents for the United States being E. Fougera & Co., of New York. Specimens of these preparations and others made by John Wyeth & Brother, of Philadelphia, and by McKeller & Robbins, of New York, have been placed in my hands for experiment.

The bromide of strontium is in the form of colorless, crystalline needles or grains, which melt with decomposition at a red heat. From the aqueous solution the salt separates in long needles which do not effloresce in dry air or even over oil of vitriol. When heated they melt in their water of crystallization and then give it off. They are easily soluble in water and somewhat so in alcohol. They have a slightly saline and somewhat bitterish taste and are destitute of smell. The bromide of strontium is incompatible with the bicarbonate of sodium, the carbonate of strontium being precipitated.

The solution of the bromide is neutral, permanent, clear, colorless and without smell. It has a saline but by no means disagreeable taste.

The lactate of strontium appears in the form of white granular masses. It has a warm, alkaline and slightly bitter taste and is without odor. The solution is a clear and colorless fluid and has a warm, acidulous, agreeable taste. The iodide of strontium occurs in small white crystals with an acrid saline taste.

Upon the announcement by Dr. Laborde of the results of his study of the physiological action of strontium, clinical experiments were at once begun by several of the physicians attached to the hospitals of Paris. As far back as 1885 Ismail Hassan had announced that the nitrate was of service in chronic rheumatoid arthritis, but his declaration seems to have passed unheeded. It had also been said that the iodide is useful in cardiac disorders. M. Laborde, believing that the bromide of strontium might advantageously replace the bromide of potassium, administered the former drug in epilepsy in doses from 75 to nearly 200 grains *per diem*, the latter quantity being the largest which would be tolerated. In moderate doses it has no irritant effect and in fact, is rather of assistance to digestion. It is consequently much better borne than the potassium salt. Dr. Chas. Féré has related the case of a patient under his care at the Bicêtre treated with 10 grammes (155 grains) of bromide of potassium daily, in whom a cutaneous eruption persisted in spite of intestinal antisepsis. Upon the strontium being substituted for the potassium salt equally good results were obtained without the production of any undesirable symptoms. M. Féré has, in some cases, exceeded 200 grains a day without observing any evil consequences. Dr. Dujardin-Beaumetz also attests the fact that the bromide of strontium is better borne than the other alkaline bromides. Its therapeutic efficacy has been found by M. Féré equal to that of the other bromides used in that disease. Germain Sée has likewise found it of use in epilepsy. Constantin Paul administered 90 grains daily to a young woman who was subject to attacks of hystero-epilepsy at each menstrual period. After the bromide of potassium had been used without effect in daily doses of 60 grains it was replaced by the strontium salt in doses of 90 grains a day. In the two months during which she had taken the latter remedy the attacks had not occurred. At a meeting at the Academy of Medicine, Oct. 27, 1891, M. Sée remarked* that the diuretic effects of the salts of strontium observed by M. Laborde in the dog had not been verified in the human subject. But in those suffering from diseases of the kidneys and heart the digestive disturbances have been notably ameliorated. This fact led him to make use of strontium in affections of the stomach. He had administered the bromide in daily doses of 30 to 60 grains, given during the three meals. In 32 cases of dyspepsia, many of which were associated with excess of hydrochloric acid, rapid and decided relief was obtained, especially in regard to diminution of flatulence. In 8 cases where hydrochloric acid was deficient the remedy produced the same effect as in those attended by excess of chlorine or hydrochloric acid, free or combined. In 6 cases, one of which was of nervous vomiting, the relief was complete. Dr. G.

* See *Medical Bulletin*, January, 1892, p. 17.

Coronedi, of Florence, obtained an excellent result from the administration of the bromide of strontium in an obstinate case of vomiting of pregnancy. He gave 15 grains after each of the two principal meals and the remedy was continued for a month, at the end of which time the gastric inability had almost entirely disappeared and the treatment could be discontinued. The same writer reports favorably of the bromide of strontium in vomiting from dilatation of the stomach, acute gastric catarrah, hysteria, and other conditions. He gave it in unleavened bread immediately before each meal.

M. Sée has seen the bromide of service in Bright's disease. It has not been known to occasion any bromine rash.

A combination known as bromo-strontium has been prepared, a teaspoonful of which contains 12 grains of bromide of strontium and ½ grain of hydrobromate of caffeine. Bromo-strontium has been employed with success in nervous headache, gastric irritability, vomiting of pregnancy, hysterical conditions, etc.

The lactate of strontium is of decided service in albuminuria. M. Constantin Paul thus summed up his experience of five months use in these cases. "Among my patients it generally caused a rapid reduction of the albumen to one-half. Continued for a month the albumen constantly decreased and at the end of that period the remedy could be suspended. The amount of albumen did not then augment but remained. In a case of nephritis, probably amyloid, in a patient suffering from suppuration and fever the result was excellent. In some rare cases the salts of strontium fail to produce a good effect. Strontium is not diuretic. If its exhibition is too soon discontinued the albumen increases. It is indicated in rheumatic parenchymatous nephritis, scrofulous and gouty nephritis and in the albuminuria of pregnant and puerperal women. The remedy is of no service after the manifestation of uræmia." In illustration of the harmlessness of pure strontium the same writer states that he had himself taken 774 grammes of the bibasic phosphate of strontium in 111 days, or about 100 grains a day. He has likewise found the lactate beneficial in albuminuria of cardiac origin. He generally administers it in daily doses of 90 grains, divided into three portions, though he has found it well borne even in daily doses of 120 to 160 grains. Together with adminished excretion of albumen the general symptoms and condition of the patients improve. M. Dujardin-Beaumetz has used the lactate in albuminuria due either to renal or cardiac disease. Within a few days the albumen was diminished to one-half its former amount. This high authority explains the favorable action of strontium by its beneficial influence upon digestion, the amount of toxic material formed in the gastro-intestinal tube being reduced to a minimum. He concludes that in lactate of strontium we possess an invaluable agent, the action of which is at the same time certain and inoffensive. Dr. Bucquoy obtained similar results from the administration of the lactate in albuminuria.

Dr. Ménager has recently reported a favorable action of the lactate in a case of albuminuria with œdema occurring during pregnancy. A pronounced diuretic effect was produced and the dropsy subsided.

The lactate of strontium has also proved of service in dyspepsia and dilatation of the stomach. It is said to have been used with benefit in diabetes.

The nitrate of strontium has been used in 30 grain doses in rheumatism of the joints and the acetate as a tœniafuge in doses of 2 to 4 drachms daily.

Since receiving samples of the chemically pure bromide, iodide and lactate of strontium I have employed them in many cases to which they seemed adapted. The results have, for the most part, been decidedly encouraging though in some the element of time has, of course, been too short to warrant me in expressing absolute confidence in the duration of the improvement. I shall continue my observations as opportunities offer. I subjoin a brief description of certain selected cases in which I witnessed marked benefit from the use of strontium.

In a case of advanced Bright's disease, accompanied by eczema, an abundance of albumen in the urine, œdema of the lower limbs, embarrassed respiration and irritability of the stomach and bowels, notable amendment took place within two weeks from administration of the lactate, in 30 grain doses four times a day. The eczema and the œdema entirely disappeared, the respiration improved and the urine contains much less albumen. The

irritability of the mucous membranes has diminished. The patient is able to take more food, his digestion is better and his sleep more sound and refreshing. In this case all the usual remedies had been tried in vain.

The lactate produced amelioration in several cases of subacute or chronic gout and rheumatism, manifested by stiffness and pain of joints, muscular pains and an excess of uric acid. The pains were greatly relieved, the turbid urine became clear, the tongue more clean, digestion better and the bowels more regular. I gave the drug in doses of 10 to 30 grains from four to six times a day. Although the results, in these cases, were more satisfactory from the lactate, the bromide also, given in the same doses and at the same intervals, was of efficacy. Contrary to the statement of M. M. Sée and Constantin Paul my attention was called to a pronounced increase in the quantity of urine passed though this result did not occur in all cases. Many of these were cases in which treatment by means of salicin, salicylic acid or the iodide of potassium had been used without avail or in which they had even done harm by damaging the digestion. This, as every one knows, is an exceedingly intractable class of cases and if the lactate of strontium can exert a beneficial influence upon a considerable number of these it must be regarded as an important addition to our therapeutical armamentarium. In patients of a neurotic type or in whom the nervous system had been gravely impressed I derived better results from the exhibition of the bromide.

The iodide was of service in three cases of chronic eczema attended by considerable infiltration and thickening of the skin and clearly dependent upon the rheumatic diathesis. In one case there was articular involvement, in another, well-marked lumbago and pains in the limbs, while the third was characterized by fleeting muscular pains in different parts of the body. In one of these cases the eruption has entirely disappeared, while in the remaining two a gradual improvement is manifest. Suitable external treatment was conjoined.

A case of psoriasis due to a rheumatic diathesis is improving under the administration of 30 grains of the iodide of strontium five or six times a day. Infiltration is lessening, uric acid disappearing from the urine and the flying muscular pains decidedly ameliorated. I express no opinion regarding the durability of the amendment.

The lactate proved efficacious in a number of cases of chronic gastric and intestinal catarrh. The remedy was well borne and seemed to promote nutrition. It was given in doses of 10 to 20 grains three or four times a day between meals.

In nervous dyspepsia and gastralgia marked relief followed the exhibition of the bromide of strontium, given in doses of 10 increased to 30 grains three or four times a day.

One case of chorea was much benefited by the bromide. The patient was a child, nine years of age, whose nutrition was decidedly impaired on account of the constant twitching which rendered mastication difficult and interfered with sleep. The dose was 10 grains, increased to 15 grains and repeated two or three times in the course of the day.

In a case of spinal neurasthenia of long standing, accompanied by attacks of pain in the back and limbs, headache and insomnia, 10 grains of the bromide at bedtime effectually relieved the pain and secured a good night's rest.

In a case of that rebellious malady, parasthesia in an aged person, (senile pruritis) a happy effect followed the administration of 30 to 40 grains of the bromide. Itching, indeed, was not abolished but was notably relieved, so that the patient experienced tolerable comfort and was able to sleep much better than formerly.

From these experiments it would seem without doubt that in cases of chronic rheumatism, gout, gastro-intestinal catarrh and albuminuria strontium deserves extended trial. Failure of other remedies should indicate its use. The bromide of strontium is very well adapted to replace the bromide of potassium in the treatment of epilepsy, being at least as efficient and often better tolerated.

CHANGED HIS NAME.—"Howdy-do, Hogg!"

"My name is Bacon, sir."

"Beg pardon; but I felt sure you were Mr. Hogg, the invalid."

"So I was; but I have been cured."—*National Tribune.*

CLINICAL LECTURES.

CEREBRAL SPASTIC PARALYSIS.*

DE FOREST WILLARD, M. D.†

We have to-day two very interesting cases of spastic paralysis which require operation. These represent the two extremes, one being a mild case in which there is a slight paraplegia with not much mental impairment, and the other being one of those severe grades of the affection, in which there is a marked general spastic condition of all the muscles of prehension and locomotion, and in which the mind is in a condition of imbecility and stupor. Between these two types there exists every degree.

Case I. The first patient is a white boy of five years, whose parents are both living and well. No history of deformity or paralysis can be elicited, but he is the youngest of seven children, six of whom have died under five years of age, the cause of death being diphtheria in two, teething in three and jaundice in one instance. He was born at full term, without instruments, and has never been ill. About three years ago his parents noticed that his ankles were weak, for which he was treated at the Orthopædic Hospital in this city, and for which braces were prescribed, which he has since worn. The parents noticed that his knees were stiff and that he walked on his toes.

Upon examination the feet are found extended, and upon attempting to flex the foot upon the leg, the calf muscles become tense, and if gentle force be continued the foot may be flexed. Upon removing the hand the foot again extends. The flexion of the foot under firm pressure is peculiar and differs from ordinary contracture from paralysis, which would allow the foot to extend as far as a given point but not beyond it. In flexing the foot the muscles seem to give way to the moderately firm pressure of the hand as a piece of lead bends, and on this account, this form of contracture is known as "lead pipe contracture." On flexing the knees the same rigidity of the muscles is by means of walking shoes his condition can be much improved. The hamstring tendons will not require division, but the apparatus will have to be carried above the knee and secured to a thigh band, the knee-joint being a lock-joint which will fix the knee in the extended position, but which may be temporarily relaxed to flex the leg when sitting.

Operation. The patient being etherized, and the parts having been previously prepared, a puncture was made with a sharp-pointed tenotome and a probe-pointed tenotome was introduced into the inner surface of the tendo-Achilles about one inch above the insertion. The tendon was put on the stretch by the assistant, the cutting surface of the knife was turned forward, and the tendon was divided by a gentle, rocking motion. As soon as the division was accomplished, the tenotome was turned flatwise and withdrawn, the puncture being closed with a small pledget of antiseptic gauze dipped in a 1:1000 bichloride solution. A piece of dry gauze, cotton and an antiseptic roller bandage were applied, and the foot, in a slightly over-corrected position, was fixed with a plaster of Paris dressing.

Case II. The second case is a small white boy only three years of age. His father is alive and healthy; his mother is also living, but delicate since the birth of this child. The child has never been strong since he had scarlet fever. There is no history of deformity or nervous disease in the family. While carrying this child the mother had a fall at the seventh month; the waters broke, but no other injury was noticed at the time and the gestation progressed uninterrupted to full term. The labor was very prolonged; observed, but not to so great a degree. The deformity is due to some cerebral injury or disease which has left this irritable condition of the muscles.

In this case the prognosis is very favorable, and after the tendo-Achilles has been divided on both sides, the feet can be brought squarely upon the ground, and

* Reported by Dr. James K. Young.

† Clinical Professor of Orthopedic Surgery in the University of Pennsylvania, etc.

the breech presented for several hours and became black from pressure and cyanosis. At first the limbs were very flexible, but during his third year they began to grow rigid when moved. On examination all his extremities exhibit well-marked spastic condition when moved; the right side is more affected than the left. The child is well nourished and plump. His general physical condition is otherwise favorable; his mental condition, however, is seriously impaired. His expression is vacant, his attention is attracted with difficulty, and he does not attempt to express himself in words. He has marked strabismus.

This case represents an extreme grade of the affection. The prognosis must of necessity be a guarded one. Operations will improve the condition of the limbs, and the mental condition also may to a degree be considerably improved by permitting him to mingle with his fellow creatures. It is impossible to remove the primary lesion, and when one set of muscles is operated upon, the spasm may be increased in other sets of muscles. In some cases, as in one recently seen, all the voluntary muscles, even the muscles of the tongue, are affected. In these cases, in addition to the operations, massage and other local treatment that may be employed, it is necessary to make a special effort to educate the mind. The child may be sent to a special institution for the education of the feeble-minded, to a private institution of the same character where only a limited number are taken, or a private tutor may be appointed. Under such training it is remarkable how much improvement may be attained.

The present case will require a number of tenotomies, and to-day we will perform section of the adductor tendon, which is the operation most required. This is best accomplished at its insertion into the pubic portion of the os innominatum, the insertions of the adductor longus and brevis being the ones most frequently contracted. The tendons are put on a stretch by separating the limbs as widely as possible. The puncture is then made upon the outer margin of the stretched tendon, a probe-pointed, broad-faced, convex tenotome is inserted flatwise, its cutting surface turned against the tendon, and with a slight rocking motion the division is accomplished, care being taken to protect the skin.

Operation. The patient having been etherized and the parts having previously been rendered aseptic, the parts were put upon a stretch, and with a sharp-pointed tenotome the puncture was made at the outer border of the tendon half an inch from its insertion into the ramus of the pubes. A probe-pointed convex tenotome was carried flatwise behind the tendon, its cutting face turned inward and the section made. The tenotome turned flatwise was withdrawn, the puncture being covered with a small pledget of gauze and the whole covered with antiseptic gauze, cotton and a roller. The limbs are best secured in this separated position by means of a plaster bandage extending from the toes half way up to the thighs. This prevents flexion of the knees, and the feet are securely tied by means of a muslin roller bandage. This simple method is more efficient than the more complicated apparatuses sometimes employed.

Why Good Swimmers Drown.

The *Northwestern Lancet* offers a new explanation of the sudden drowning of good swimmers, hitherto attributed to cramp. There is nothing in a cramp in a leg to prevent an ordinary swimmer supporting himself in the water by his hands or on his back, nor to cause him to throw up his hands and sink once for all like a stone. The cause is attributed to perforation of the ear drum, through which the access of water pressure occasions vertigo and unconsciousness, and a practical caution results, to persons having such perforation, to protect their ears with a stopper of cotton when bathing.

The Creator Knows. — "Doctor," said the patient, "I believe there's something wrong with my stomach."

"Not a bit of it," replied the doctor promptly. "God made your stomach and He knows how to make them. There's something wrong with the stuff you put in it, may be, and something wrong in the way you stuff it in and stamp it down, but your stomach is all right." And immediately the patient discharged him.—*Amer. Anal.*

COMMUNICATIONS.

EXTRA-UTERINE PREGNANCY.*

DR. MORDECAI PRICE., Philadelphia.

Preliminary to the discussion of the subject to which I shall call your attention I feel it appropriate to mention the fact that of the many operators in abdominal surgery, who have left indelible proof of their well-earned reputations in ovariotomy, the pioneers in abdominal surgery, its first successful workers, few if any of them recognized this dangerous condition as one that could be removed by the very same power they were so fond of applying in other and less dangerous conditions.

Many of us lay claim to originality in procedure, while the fact exists that all that is best in our work can be directly traced to that genius of the surgery of our generation, Mr. Tait. He has taught us the best of the little we know. From the lessons his own work in abdominal surgery taught him he took up and perfected a work long neglected. I forbear calling your attention to what had been done by other men. Mr. Tait has done more to forward the cause of enlightened and skillful surgery than any man of his own or any other generation. It is the afflicted woman and the profession who should appreciate his great worth. In extra-uterine pregnancy alone he has saved more lives than some of the great battles of the war destroyed. It is to be hoped that with the profession the talk about originality will be modestly tempered; they are most thoroughly learned in these lessons who have had most experience in their application. Casting aside all claims of originality I will call your attention to the result of lessons in one hundred cases of extra uterine pregnancy. From my observations in these cases I second Mr. Tait's opinion that they are all tubal in origin. That the rupture takes place during the first twelve weeks in the greater number of the cases. I know of none later in the cases coming under our care.

Symptoms in extra-uterine pregnancy present a picture which once seen and appreciated cannot be forgotten by any one who has ordinary surgical sense. The symptoms of the disease are, in most cases, well-marked, absence of a period, a soft cervix, severe pain, agonizing at times, with fainting, in many cases death like pallor, a feeble and almost pulseless condition, distended abdomen, diarrhœa with no relief of symptoms, a constant desire to stool, the patient often found in the water closet in an unconscious condition owing to the great loss of blood from straining efforts at stool.

A feeling of fullness and weight in the pelvis, a boggy, fluctuating mass in Douglas' pouch, at times a tumor at one side or the other, or both. It is the pressure of this blood tumor on the bowel that compels the patient to make efforts to stool for its expulsion.

In recent cases well-marked symptoms of peritonitis have existed without increase of temperature. In more chronic cases where there have been a number of attacks with repeated bleeding from the ruptured tube with encapsulation; blood is a foreign body in the peritoneum and nature always makes an effort to protect itself from dangerous invasion from any irritant or poison.

Where the old clot is breaking down and the tube undergoing necrosis, there will be an increase of temperature. In my own personal experience in fifteen cases operated on with twelve recoveries, all of them emergency cases, almost all of them at the time I first saw them were supposed to be dying; pulse could not be counted at the wrist, almost every symptom here noted was present. I have assisted my brother, Dr. Joseph Price, with most of his cases, now eighty-five in number (one death),and I have yet to see a single case of intra-peritoneal hæmato-ceale. We have found the child in all cases of recent rupture, and rupture not over two weeks old, and also the placenta with its peculiar appearance and odor. In one month in the year 1891 we had eight cases of ruptured extra uterine pregnancy, the

* Presented to the State Med. Soc., 1893 and reported by Special Correspondent.

child was found in seven, the eighth was a chronic case of Dr. Dunham, of Trenton, N. J., that had ruptured eleven weeks before in the hands of a man that did not suspect the real cause of her trouble and when Dr. Dunham was called to the case she had a blood tumor extending to the umbilicus, accompanied with daily chills, contents very offensive with a large necrotic placenta. In this case we did not find the child, and I have no doubt it had been removed by absorption as many of them are. This patient recovered. The inflammatory diaphragm would not let the bowels descend to fill up the pelvis, so we left the cavity full of boiled Trenton water with a glass drainage tube to finish the good work, with watchful care of her attendant. She made a satisfactory and rapid recovery.

The case to which I wish specially to call your attention is one of extra uterine pregnancy operated on in the tenth month. Her attending physician was Dr. James Collins, a surgeon of well known reputation in this state and a member of this society. From the meagre history we could gather of her case she became pregnant about the first of January, 1892. February 13th, while shopping, she was seized with agonizing pain, was compelled to return home, fell on her doorstep and was carried in the house. Dr. George Yeomans attended her for three days but did not suspect pregnancy; not improving Dr. Yeomans requested that her regular attendant, Dr. James Collins, be called. She was then complaining of severe pains in the elbow joints, was much debilitated, as if suffering from mild sepsis. She slowly improved and the Dr. discontinued his visits. From this period on she suspected that she was pregnant.

Though ill she continued in the discharge of her domestic duties. Between the fourth and fifth months there occurred free hemorrhage from the uterus. She then doubted the possibility of pregnancy. About a month later she felt life; she was suffering severely but continued about her work, though losing flesh and strength daily and feeling herself a very ill woman. From the beginning to the end of her pregnancy she does not remember a single well day. She was taken in labor on the evening of the 21st of October; for three nights she had severe labor pain; there was no dilatation of the cervix until the 23rd. On the 23rd Dr. Collins concluded that there were serious complications in the case and suspected monsters, as two heads could be distinctly felt, one to the right and the other to the left; no part of the child could be detected in a careful examination through the cervix. It was determined to give the patient ether and do anything to help her that might be required by the child and the presentation. Dr. Collins in a very short time decided what he had to contend with and asked me to confirm his diagnosis of extra uterine pregnancy.

This was an easy matter—the womb was then wide open and empty—the hand passed in to the thumb and nothing but small clots of blood found in the uterus. The operation was a very short and simple one; the usual instruments for a section and the usual care to have things clean. An incision four to five inches long in the median line to the side of the placenta as near as we could judge of its location. The child had for its covering part of the placenta and its amniotic sac. It was delivered by the breach and passed over to Dr. Jennings, of Virginia, who took charge of the baby.

THE TREATMENT OF THE PLACENTA.

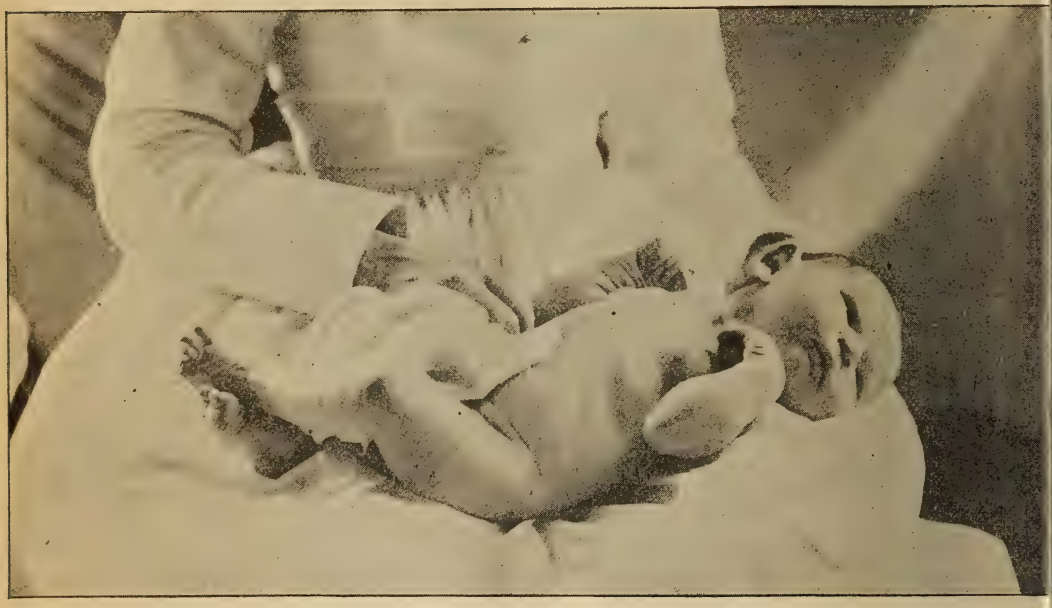
Before the operation the position of the placenta was to the left, the child in the center and the womb to the right. The placenta was attached to the uterine attachment of the left tube and the entire pelvic viscera of the left side from the spine at the back, extended up to the kidney and covered the descending colon. The placenta was slightly wounded in the abdominal incision, and was the cause of considerable hemorrhage. This was controlled by clamping forceps which were allowed to remain until the first dressing. The child was enveloped by the amniotic sac. To the amniotic sac was attached the transverse colon; also the small intestine to a small extent. In carefully examining and estimating the surface covered by the placenta those present concluded it was as large as the rim of a man's hat. The cord was attached about two inches to the left and the same distance above the umbilicus. The huge placenta vessels radiated in every direction toward the cord. The thought of removing the placenta in its peculiar position and size never once occurred to me, but

the knowledge of what would happen if the attempt was made did forcibly occur to me. The removal with such attachments could not have been other than of fatal hemorrhage.

The cord was then tied short where the amniotic sac was attached to the upper part of the wound, the general peritoneal cavity was opened, and the sac was stitched fast to the abdominal peritoneum. There was no amniotic fluid surrounding the child, all had been absorbed and the skin of the child undergoing digestion. This was shown as the least rubbing with a cloth would take off all the true skin and leave a raw and bleeding surface.

odor except that of creosote. The patient's temperature slowly advanced until about the 14th day, when her appearance indicated great danger from sepsis. An attempt was made to remove the placenta, but a slight detachment of it produced alarming hemorrhage which was controlled by pressure. In twelve hours the temperature dropped to 96°, and the indications were of a threatening character. At this time the opening in the abdomen gave no promise of the recovery of the patient; the membranes and placenta had a black and gangrenous appearance.

At the end of the third week the patient's condition seemed so desperate that



Child 4 days old. Delivered by Section by Mordecai Price, M.D., Oct. 23, 1892.

After the removal of the child the cavity in the amniotic sac was much reduced in size by the contraction of the surrounding muscles and viscera. These contractions were well marked. The sac was cleaned with gauze and packed all over the face of the placenta, and the ends brought out of the abdominal wound. Additional gauze was placed to keep the wound protected, iodoform was freely used and the first dressing was left for three days and then removed, and there-after twice daily until the patient recovered.

The drainage was free and consisted of blood and serum, perfectly free from all

we felt warranted in making a second attempt to remove the placenta, with the same result as in the first instance,—alarming hemorrhage. We then decided to cut away with the scissors all that portion of blackened placenta and membranes in sight. This was done daily, sometimes as much as one ounce at a time. All was removed until living placenta was reached. This continued until the thirty-third day when the patient seemed to be in severe labor, and part of the membranes from the left kidney presented themselves in the upper angle of the wound. The patient was suffering greatly from intermit-

tent paroxysmal pain. I would state that the placenta made a hard ridge of tissue, raising up the abdominal wall from an inch to 1¼ inches from the pubis to the left kidney, hard as a fibroid tumor and tender to the touch. This did not change in appearance until the thirty-third day, when spurious labor set in. We at once decided at all risks to remove the placenta. I passed my hand immediately back of the placenta over the kidney, finding its edge detached. I enucleated all the placenta except that attached to the uterus and left tube. This I could not tear away. The placenta tissue was living and bled freely. On the thirty-fifth day I removed the remainder.

At the end of the second week the amniotic sac over the transverse colon had sloughed away and a fecal fistula was the result. This complication continued to trouble us up to the sixteenth week. After the placenta was removed our patient gave us no further anxiety as to her recovery.

One of the strange features of Mrs. S. case was the fact that when ever the child was brought to her after the delivery, or was in sight, she become sick at the stomach. This continued for the entire period of the retention of the placenta, thirty-five days. She tried by every means to overcome it, she is a woman of wonderful will-power, a patient, child-loving, Christian mother, who felt it her duty to overcome such feelings. As soon as the placenta was removed, this symptom at once disappeared. She never would admit until after the removal of the placenta that the child's presence gave her both mental and physical distress. Had we known such to be the effect of its presence we would have removed it permanently from the room.

Child 7 months old. Delivered by Section by Mordecai Price, M.D., Oct. 23, 1892

CAUSES OF DEATH IN EXTRA-UTERINE PREGNANCY.

The most important cause of death is great loss of blood; the quantity lost is almost incredible and death, in some

cases, almost immediate; others only live a few hours, dying in great agony.

To perish by loss of blood is to be consumed by unquenchable fire; the burning thirst and intense pain cannot be described. I speak from my own experience, having once bled to unconsciousness from an open vessel after an amputation. The burning pain of the amputation was as child's play to the suffering from loss of blood. It is recorded by those who have attended cases of extra-uterine pregnancy, where the hemorrhage was so profuse as to destroy life in a few hours, as cramps, cholera morbus, uterine colic; in fact, every agonizing condition we may be called to treat.

Second, from pressure of the blood clot in the peritoneum; it takes much less fluid injected into the peritoneum to destroy an animal than if forced into the bowel, showing the direct destroying power in its pressure upon the sympathetic ganglions in the abdomen. The influence of blood pressure is well shown in cases of extra-uterine pregnancy where there has been great loss of blood, pulseless and apparently dying, abdomen distended with blood and clot; as soon as the abdomen is opened and the bleeding tube and blood-clot removed, the pulse will appear at once with regular and a distinct, countable beat, showing the influence of the pressure on the heart and other vital organs.

This fact we have noticed many times in our desperate cases. At time of rupture if the patient does not perish the peritoneum at once begins the removal by absorption of the blood-clot, placenta and baby, and I have no doubt there are many cases of recovery; but if this physiological work does not succeed, changes will take place, the contents will become poisonous, septicemia and its consequences will destroy the patient. Delays in operative measures in these cases make up the mortality list to the figure it now presents; could we operate promptly in all cases there would be only a very light death rate, say one to two per cent. These cases that have gone on to a later period and then have the child perish and the dead child become encapsulated, with such changes as time and a strong constitution can stand, with the placenta removed and so much of the earlier landmarks removed by the changes of time that we are unable to say anything of its earlier history save what the living ones have taught us as to the pathology of this dangerous condition; changes may and often do take place in these encysted, encapsuled extra-uterine pregnancies that will destroy life.

HEMORRHAGE.

No one doubts the possibility of hemorrhage in any part of the body, therefore, we may have intra-peritoneal hæmatocele, but the condition must be very rare, and its causes, as given by most admitted authorities on this subject, doubtful. Take the work of Dr. Joseph Price, and my own. We have never met with a case of intra-peritoneal hæmatocele in hundreds of operations done in the pelvis, and we have had hemorrhage from ruptured extra-uterine pregnancy one hundred times, and the cases we have met with exactly correspond with those described by Dr. Martin, under the heading of "Intra-peritoneal Hæmatocele." The day will come when Dr. Martin will change the heading of the chapter in his excellent work on the diseases of women from "Intra-peritoneal Hæmatocele" to Extra-uterine Pregnancy. I have no doubt that much of the confusion in the minds of the profession comes from the fact that this great surgeon continues to associate the symptoms of this most dangerous accident with a condition that in the experience of equally as good observers exists only as a very rare condition. I contend that we have absolute proof that the condition Dr. Martin calls intra-peritoneal hematocele is none other than extra-uterine pregnancy, for we operate for the identical symptoms and find ruptured tube, a placenta, and a baby in ninety per cent. of the cases, and other proof of pregnancy for the remainder.

There are a few important questions in regard to the treatment of extra-uterine pregnancy to which I would like to call your attention—conclusions drawn from my own experience. Such an occurrence as a rupture primarily into the broad ligament—I have never seen anything that in the least resembled it.

I have seen them develope in Douglas' pouch with the broad ligament covering its entire face as high as the umbilious and at the time of operation had we gone through the broad ligament in the removal of the product of conception, the

placenta and the retained blood clot, we would without doubt have concluded we had a broad ligament pregnancy. In our experience we have never met with a single case that had ruptured into the broad ligament.

Now in regard to the time for operation. In my opinion the operation should be done as soon as the diagnosis has been made—immediate surgical interference without regard to period of development or the viability of the child. I cannot agree with Mr. Tait in the following: "So long as an ectopic gestation was going after the period of primary rupture without risk to the mother, we should certainly not interfere."

I cannot conceive of a period in these cases where the extra-uterine gestation can go on without great danger to the mother. The placenta is daily enlarging and forming new adhesions and in every way increasing the risk of the mother. We hesitate to operate for the same reasons that we delay operating in large and complicated tumors—we know the great risk the patient has to take. The operator also feels that in a measure he may shorten his patient's life. Thus he wishes to shirk so much responsibility. We know by experience in all abdominal work that delays are dangerous. Extra-uterine pregnancy is no exception to this rule, but from its very beginning to the finish, there is continuous and increasing danger. No one here can question the advisability of an operation at the time of a first rupture for the control of the bleeding point and the removal of the condition producing and the cause of that danger; nor does the necessity for operation lessen from this dangerous period of rupture, but on the contrary continues to rapidly increase the danger to the mother. It is his duty to explain daily increasing danger of an operation and also the in all human probability and ultimate destruction of his patient by her misplaced pregnancy. For these reasons I would advise a patient to submit to an operation at the earliest opportunity available.

Now as to the propriety of destroying a child. This question decides itself in all patients of the Roman Catholic faith. We have no right to dictate to them what should be done when it is the law of the church that no child should be sacrificed to save the mother. From a personal standpoint I would always give the mother the benefit of all chances in this murderous condition.

There are a few points I wish to lay prominently before this society: First, we have but one rupture of an extra-uterine pregnancy; the repeated hemorrhages come from a detachment of the placenta or a reopening of the old bleeding point in the tube, and not from a secondary rupture as stated in most reports of cases and by the works on the subject. The second point I wish to call your attention to is the fact that all cases that go on developing after the tubal rupture are those where the child has been forced through the tubal rent, securely encapsuled by the amniotic sac that has remained in tact, and where the placental detachment is not sufficient to destroy the life of the child for want of sufficient blood to nourish until other attachments of the placenta have been formed.

If the amniotic sac is destroyed the child is either absorbed, digested by the peritoneum or becomes encapsuled by the peritoneum in its efforts to take care of its contents when once encapsuled in this effort of nature to protect its vital organs, it may be retained for years or there may be changes in the sac or its contents that will require immediate surgical aid to prevent a fatal septic peritonitis. All the cases of extra-uterine pregnancy that go to term do so by the protective influence of the amniotic sac which has been left in tact from the start and, so far as our experience goes, is its only protection. All the cases both in my hands and those of Dr. Joseph Price have been so protected. The one operated on in Camden at the seventh month with a living child by Dr. Joseph Price was so encapsuled by the unruptured amniotic sack.

The one operated at 63rd and Woodland avenue for Dr. Weaver at the end of the second month the child was in perfect condition and encapsuled in the amniotic sack. This case would have gone on to term had not the hemorrhage been so severe as to almost destroy life. In that case I removed the placenta and tube and the child in its amniotic sack was not greatly adherent to any point save the attachments of the tube.

A person who has lead poisoning never sweats, and the mucous membrane of the intestines is as dry as the skin.

LA GRIPPE OR EPIDEMIC INFLUENZA; RESULTS AND SEQUELÆ.*

D. H. BERGEY, M. D., North Wales, Pa.

La Grippe, or epidemic influenza, is an infectious, contagious disease, characterized by the rapidity of its onset, with symptoms varying somewhat with the mucous surfaces involved, and also with the previous health of the patient, attacking all ages, though most prevalent among adults. One attack does not give immunity to a second attack, and it is extremely liable to be followed by relapses.

Bronchial and gastro-intestinal catarrh are the two forms most frequently noted, though all the mucous surfaces may be involved at the same time. The invasion is usually rapid, with initial chill or chilliness followed by considerable elevation of temperature, and prostration of unusual degree extending through the period of convalescence, which in some cases is ushered in by profuse sweating, while in others there is free perspiration during the greater portion of the course of the disease. Most cases have some headache and muscular pains involving the entire muscular system, while in some the pains partake of a rheumatic character.

As an epidemic it is remarkable for its extensive and rapid diffusion, spreading over a whole continent in a short time, and in apparent waves of varying severity of the symptoms. It is a self-limited fever, in mild cases, with the respiratory and intestinal catarrh as mere local expressions of the constitutional disease.

Etiology. It is impossible to speak definitely with regard to the etiology of this disease. While the majority of epidemics occur during the winter, but very little influence is exerted by meteorological conditions. Flint says that owing to the fact of its "being an infectious disease the germ theory offers the most rational view of its etiology."[1] Prof. H. C. Wood says—"it is undoubtedly a specific disease—in all probability the result of a specific poison—it seems to me to be imparted from man to man."[2] Dr. J. Howe Adams says—"the fact that it is in some way extremely contagious is generally accepted by the profession."[3] Dr. J. William White[4] likewise reaches the conclusion that it is contagious from the development of nineteen cases in the relatives and friends of a patient dying in Europe, in December, 1879, when the corpse was brought to Philadelphia, there being no influenza in America at that time. Dr. Edward Martin says—"from the clinical aspect the question of contagiousness seems to me as clearly demonstrated as is the contagiousness of any known disease."[5] Frey (*Deutsche Medicinische Wochenschrift*, March 10th, 1891) believes that influenza is due to a specific micro-organism."[6] Pfeiffer (*Deutsche Medicinische Wochenschrift*, January 14th, 1892), "examined thirty-one cases of influenza, and in all he found a peculiar bacillus in the bronchial secretion, in almost pure culture in uncomplicated cases. They were frequently within the pus-cells. The same bacillus were found in the peri-bronchial tissue in some cases. Control experiments show the bacilli to be absent in ordinary bronchial catarrh. The increase of the bacilli kept pace with the disease. They are small rods about the thickness of the septic bacilli of mice, but only half their length. Three or four are often joined in a chain. If great care is not taken they will be confounded with diplococci or streptococci. Inoculation experiments have been made successfully in apes and rabbits. He believes it to be the cause of influenza. Kitasato (*ibid*) made cultures of these bacilli with similar results. Canon (*ibid*) searched the blood of twenty influenza patients and found the same bacillus in all. This he thinks is the same as the one described by Pfeiffer. He did not find the organism in the blood of all influenza patients, at least those having fever."[7] Herzog (*Archiv für Kinderheilkunde*, Vol. xiv, Part 6th, 1892) believes that "one attack does not give immunity to a second attack.

*Read before the Montgomery County Medical Society, (Pa.), March, 1893.

1 *Flint's Principles and Practice of Medicine*, Fifth Ed. p. 237.

2 *Univ. Med. Mag.*, Vol. II, No 6, p. 309.

3 *Univ. Med. Mag.*, Vol. IV, No. 5, p. 353

4 *Univ. Med. Mag.*, Vol. IV, No. 5, p. 355.

5 *Univ. Med. Mag.*, Vol. IV, No. 5, p. 361.

6 *Univ. Med. Mag.*, Vol. III, No. 10, p. 638.

7 *Univ. Med. Mag.*, Vol. IV, No. 6, p. 458.

All persons were liable to be attacked, no condition or age protecting against it. He believes the disease is highly contagious, and that the incubation stage is from three to six days."[8]

Symptoms. The symptoms of this disease vary much with the organs involved. The initial chill, or even the chilliness in milder cases, is followed by moderate or high fever according to the amount of systemic involvement; the headache, lumbar and muscular pains are rapidly followed by undue prostration; and the development of catarrhal irritation of either the respiratory or digestive tract, is the usual course of the milder form of cases. In the cases where the catarrhal irritation involves the bronchial tubes there is always irritating cough with copious expectoration in the later stages. As a complication in these cases we may have well-marked pneumonia developing, though more generally the disease does not progress farther than the congestive stage; or it may take the form of capillary bronchitis. The apparent lung involvement is sufficient to warrant the anticipation of pneumonia, but in robust patients it is often relieved by prompt treatment.

In cases where the catarrhal irritation involves the gastro-intestinal mucous membrane we have developed profuse diarrhœa with abdominal pains of considerable intensity. Distressing vomiting may also be present. This form of the disease frequently simulates typhoid fever but can be readily distinguished by carefully noting the temperature movement. In those cases taking the form of gastro-intestinal catarrh the symptoms may be mild and merely simulate an attack of acute indigestion, or, in the severer form, all the symptoms of a violent gastro-intestinal inflammation may be present, with severe abdominal pains, profuse vomiting and free diarrhœa. All these symptoms, however, quickly abate under the action of revulsives and other appropriate treatment.

In those cases taking the form of respiratory catarrh the symptoms may rapidly deepen into a condition of severe catarrhal pneumonia, especially in children, the aged and debilitated, and is frequently accompanied with pleuritic and pericardial involvement. The congestion of the lungs often takes on the form of crupous pneumonia, which, in robust patients, however, readily abates under appropriate treatment.

In a smaller proportion of cases the disease does not take on a distinctly catarrhal form but manifests itself by fever accompanied with severe nervous symptoms and with unusual depression. In many of these cases the heart is the most important indication of the nervous depression. In these cases we have nervous derangement ranging in severity from the mildest form of neurasthenia to those of insanity in the form of melancholia, confusional insanity, or active delirium simulating mania.[9]

Diagnosis. The diagnosis must be based on the character of the combined symptoms; on the presence of epidemic influence; on the excess of fever and other constitutional disturbance to the amount of local disease, and on the development of fever before the manifestation of the local disease; on the suddenness of the onset, and the persistence of debility during convalescence; on the marked tendency to sweating; and by the exclusion of other diseases.

Prognosis. The prognosis, in mild cases, is favorable. It is only in cases presenting organic complications, and in the very young and the old and debilitated, that an unfavorable termination is likely to result. Death usually results from some form of lung complication, nervous exhaustion or heart failure, or even all three combined. I lost three cases during the epidemic of 1891–'92; each from double pneumonia, two in aged, debilitated patients, and the other a case of organic heart disease. The exhaustive nature of the disease, with the profound disorganization of the blood, and the many complications that may possibly occur, makes this a more than usually grave disease. Even after apparent convalescence has become established there may be ultimately a fatal termination for secondary causes, more especially from consumption; but also from heart, liver and kidney diseases developing in the debilitated convalescent.

Treatment. The treatment of this disease, as a rule, does not call for active measures. Absolute rest should be en-

8 *Univ. Med. Mag.*, Vol. V, No. 5, p. 338.

9 Dr. F. X. Dercum, *Univ. Med. Mag.*, Vol. IV, No. 5, p. 369.

joyed, and all severe cases must be at once confined to bed. Camphor is claimed by some physicians to be a specific but my experience with it, though limited, does not bear out the assertion. Sinapisins, diophoretics, anodynes, quinia with supporting diet, includes all the more important measures, in the usual order, in which I found most satisfaction. The various constitutional manifestations and the different complications had to be met by the appropriate measures for which they called. For the severe headache, backache and muscular pains I invariably used the antipyretics—salicylate of sodium, acetanilid, phenacetine, and antipyrin, guarding against too large doses so as to avoid depressing the heart action. The irritating laryngitis and bronchitis were most readily subdued with free sweating, the administration of Dover's powder and the application of sinapisms, followed by ammonium chloride and quinia during the convalescing stage. The vomiting and purging in the gastric form of the disease were combated by sinapisms to the epigastrium and even over the whole abdomen, with the subnitrate of bismuth and powdered opium internally, followed by quinia after the acute trouble had passed. In the cases presenting heart weakness the use of digitalis and caffein, with strychnia, quinia and alcoholic stimulants, was generally followed by favorable results. The nervous symptoms were best met with tincture of cinchona and tincture of mux vomica, or the alkaloids strychnia and quinia. All through the disease, if the digestive tract permitted, a supporting diet was ordered, with strict injunctions against fatigue and exposure. Early exposure, or even undue exposure after considerable time had elapsed, was almost invariably followed by a relapse of a more serious nature than the primary attack, and usually with graver complications and a more prolonged convalescence.

TWO CASES OF GALL-STONES, WITH ULCERATION OF THE GALL BLADDER INTO THE INTESTINE.

JOHN M. CURRIER, M. D., Newport, Vermont.

Case I. On January 18, 1888, I was called in council to see Mr. D. L. H., affected with jaundice; aged about sixty; jeweler. He had been subject for many years to attacks of "bilious colic," accompanied with severe pains in the abdomen. These attacks were always followed by a deep jaundice. This attack was like the previous ones, but much more severe. There was deep jaundiced color of the skin and conjunctivæ; the urine heavily loaded with bile; the stools were infrequent and clay colored; nausea, loss of appetite, and several degrees of fever. This physician had diagnosed gall-stones, with obstruction in the common duct. All the symptoms became more aggravated, particularly the jaundice; and there was complete absence of bile in the stools. The patient continued to grow weaker for about three weeks. I was informed by his attending physician that he had a discharge from the bowels about that time, when the nurse heard something hard strike the bottom of the bed-pan. On examination there were found over sixty gall-stones, agglutinated into one mass by recent deposit of thick bile. They were easily separated, and were quite uniform in size, being about that of large peas. The stools were spoken of as being very offensive. They were loaded with a large amount of dark bile, and from that time on the stools contained the usual amount of bile. The patient began to improve immediately, and continued to do so though slowly, until tolerable good health was obtained. There is no doubt but that this patient had an ulceration through the coats of the gall-bladder and contiguous intestinal wall, this being a natural cure, although the function of the gall-bladder as a reservoir for bile is destroyed, and the bile would flow into the intestine as fast as formed ever afterwards. One other case illustrates the diagnosis in this one and I will relate it.

Case II. Rev. A. R. G., aged about sixty-five, had for many years occasional attacks of severe "bilious colic," which

had always been relieved in a few days, but invariably followed by jaundice. A short time would suffice to regain his usual health, although he always had a sallow complexion. His last attack had all the symptoms of the previous ones, but much more severe. His physician had given blue pill which he followed with castor oil after the case had gone on about seven or eight days. The dose of castor oil was a large one, producing much griping; the pain in the abdomen continued to increase for about twenty-four hours when the patient died. I saw the patient only after death, and made the autopsy. On opening the abdomen there was extensive peritonitis, more strongly marked over the region of the liver. There were adhesions of the gall-bladder to the intestines by recent hymph, but there was a rent of these new adhesions; allowing gall-stones to flow out into the abdominal cavity. There had been formed an opening, from ulceration, from the gall-bladder to the intestine previous to the tearing asunder of these new adhesions.

Gall-stones, too large to pass the common duct were found in the intestinal canal, in the gall-bladder and abdominal cavity.

It was decided that, had not the blue pill and castor oil been given, the patient might have recovered completely from "bilious colic" and gall stones.

These two cases illustrate the advisability of laparotomy and removal of gall stones, or the establishment of a passage into the intestines.

SOCIETY REPORTS.

GEORGIA STATE MEDICAL ASSOCIATION.

Proceedings of the Forty-Fourth Annual Meeting, held at Americus, April 19th, 20th and 21st, 1893.

FIRST DAY—MORNING SESSION.

The Association convened in the City Hall and was called to order by the President, Dr. A. A. Smith, of Hawkinsville, at 10 A. M.

Prayer was offered by the Rev. A. M. Williams.

An address of welcome was delivered by Mayor A. S. Cutts, which was responded to on behalf of the Association by Dr. Mark H. O'Daniel, of Macon.

The first paper read was the President's Annual Address, by Dr. A. A. Smith.

President Smith said that Georgia had her boards of education, her boards of trade, and her various other boards, but she had no board of health. The sanitary condition of her two million inhabitants, dwelling within the borders of 137 counties, should be looked after and cared for in an official way; and a board of health, composed of the best medical talent in the State should be established for that purpose. He knew of nothing that would be more conducive to the protection of the general health and prosperity of the people than the permanent establishment of a State Board of Health. He also recommended the permanent establishment of a State Board of Examination, and said no one should be allowed to practice medicine within the borders of the State until he shall have passed a rigid and satisfactory examination under this board, and received therefrom a certificate of proficiency. This would drive away quacks, and thereby not only protect the health and the lives of the people, but also the honor and the dignity of the profession. Furthermore, the curriculum of medical institutions in Georgia should be raised to a higher standard. Nothing less than the three course system should be tolerated, and each of these courses should be made broader, deeper, and more comprehensive. With a State Board of Health, and a State Board of Examination permanently established, and the curriculum of the Georgia medical schools raised to a higher standard, the profession would greatly accelerate the onward and upward progress of such a cause, and as it moved up onward and upward, higher and higher, mantled

with the glory of its past, and crowned with the splendor of its future, God's truth would bloom upon its brow, and God's approbation rest upon its work.

Dr. C. C. Hart, of Cross Keys, read a paper entitled "Shot-gun Prescriptions" in which he asked whether it was right to make what is known as "shot-gun" prescriptions. Personally, he thought it was not right, because it increased the difficulty of prescribing, and made the therapeutic action of medicines more uncertain and consequently less safe for the patient. We should strive to make medicine an exact science, which we could never hope to do without exact knowledge; and how are we to know what effect a certain medicine has when it is combined with several other medicines, some of them perhaps of an antagonistic nature?

Dr. J. I. Darby, of Americus, contributed a paper entitled "Puerperal Septicæmia and its Treatment."

FIRST DAY—AFTERNOON SESSION.

The first paper read was by Dr. J. M. Head, of Zebulon, entitled "Puerperal Eclampsia, with a Report of Cases."

True eclampsia might differ from epilepsy clinically, but the paroxysms of each were essentially the same. We find in eclampsia occasionally premonitory symptoms which, if properly interpreted by the obstetrician, will put him upon his guard and sometimes enable him to ward off the attack. However, in a considerable number of cases the symptoms are so slight as to escape detection, and suspicion is not aroused until severe convulsions are on. Hence we find it is of practical importance to bear well in mind the most common of the symptoms which are associated with cerebral troubles, such as severe headache, either general or unilateral, spots before the eyes, dizziness, blindness, vertigo or impairment of the intellectual facilities which are occasionally observed. Again, we see symptoms manifested in restlessness, irritability of temper, stupor, general indisposition, œdema of the cellular or subcutaneous tissue, shown by swelling of the lower extremities; but this one symptom bears with it a much more serious import when it is observed as occurring in the upper extremities or a swollen face. These symptoms are sufficient to excite the most serious apprehensions and lead us to make examinations of their causes.

So eclampsia should be considered of a functional nature through reflex influences, as chorea is an occasional feature of pregnancy. For the purpose of elucidation the speaker mentioned the prominent disorders of the pregnant stage.

"Contagiousness of Consumption." Dr. J. G. Hopkins, of Thomasville, read a paper on this subject. The speaker said he had joined the growing army which placed tuberculosis in the category of contagious diseases, and his experience with this disease during nineteen years of investigation in Thomasville—which place is a resort for consumptives—bore him out in his opinion, and made him a willing subject of the great and erudite Koch. He does not doubt but that all men, women and children at some time or times receive into their air passages, the tubercle bacilli, but fortunately the great majority possessed the power of repelling them and throwing them off—they did not find that soil, so to speak, which is adapted to their growth. Indians in a state of nature seemed impervious to the germs of consumption, but were now dying by thousands on the reservations. The whites and the blacks in prisons and asylums all over the world labored under similar conditions. A report from the Illinois State Prison at Joliet says that there are 1400 convicts within the walls, and fully one-third of them have consumption in a light or bad form. Nearly all deaths of persons in the penitentiary have been caused by consumption.

Dr. Hopkins emphasized the danger that lurks in sleeping cars, in carpets, bedding, clothing, and in the walls of apartments occupied by consumptives, which have not been properly renovated and rendered harmless by antiseptic measures.

Consumptives should be forced to provide for the destruction of sputa. Whenever situated so as not to expectorate directly into a germicide or the fire; they should use some means of conveying the sputa to the germicide or the flames. If handkerchiefs or cloths are used, they should not be sent to the laundry as human happiness and life are jeopardized through the probability of inoculation through abrasions upon the hands. These bacilli should never be allowed to dry up

and impregnate the air, as is now done through ignorance of possible result. Numerous experiments by leading medical authorities have proven beyond doubt that consumption is an inoculable disease, and so rapidly is the throng of converts growing that the speaker would not be surprised, if, even in his day, resorts now solicitating the patronage of the consumptive will be quarantining against him.

Dr. J. MacFadden Gaston, of Atlanta, read a paper entitled "Science in Medicine and Surgery."

He said at this time the medical profession was undergoing a most interesting transition from the extreme views which had been held by some in regard to the employment of germicides in surgical practice. There was a time within the past decade when it was deemed to be scientific and progressive to use antiseptic measures of the most energetic kind in all operations, whether there was a septic element to combat or not. But, thanks to the mature investigation of the effects of germicides upon normal structures by bacteriologists for this class of work, it has been demonstrated that the so-called antiseptic agents are capable of setting up septic processes in healthy tissues. The tables are now turned, and instead of a surgeon being compromised by eliminating germicides from his surgical procedures in ordinary cases, and confining his irrigation of recent wounds to simple sterilized water, it is he who departs from this course by the employment of solutions impregnated with toxic agents who is held responsible for the consequence of their absorption. In case there is a healthy and normal state of structures involved in a cutting operation, there can be no indication for antiseptics, and their use is only calculated to do harm by absorption, and the best men in the profession have ceased to employ them. The most energetic and hence the most likely to cause mischief is corrosive sublimate. Dr. Gaston quoted Dr. Vance of Louisville as saying that it was beyond all doubt that the present position of bichloride was rather against its use, and that it did more harm than good, as demonstrated by Welch and Abbott.

Dr. Mark H. O'Daniel, of Macon, read a short paper on "Multiple Neuritis, Alcoholic," and reported a case. The patient was 36 years of age, fleshy, short build, short neck, florid complexion, a bilious temperament, and a book-keeper by occupation. The patient had taken but little exercise for quite a long while except in the elbow joints. He came of a nervous ancestry, having an aunt who had died of climacteric mania and other relatives who had been insane for a short time, showing beyond doubt a predisposition on part of the patient to nervous trouble, which if it had not existed, the use of alcohol might not have precipitated the disease in question. The patient drank from one to two quarts of whiskey a day, that is during twenty-four hours. He had all the symptoms of such cases. Under appropriate treatment the patient made a good recovery.

Dr. Willis F. Westmoreland, of Atlanta, followed with a paper entitled "Syphilis from a Sociological Standpoint," in which he said year after year, particularly in the clinics, syphilitic subjects, a great many of them women, came before him suffering from this disease in all its stages, from the original lesion to the worse ravages of the second and tertiary stages, with mucous patches and syphilitic ulcers covering them. And when he found upon investigation, many of them servants, occupying various household positions as chambermaids, nurses, cooks, waitresses, etc., he could not but think that God protects the family exposed to the baneful contamination of their service, and particularly the poor little defenseless ones whom they nurse, and with whom their relations are so intimate. Any one who has not investigated the subject will be overwhelmed with surprise at the number of cases acquired otherwise than by sexual intercourse, and the various means by which it has been transmitted. Physicians and dentists are themselves exposed, and likewise expose their patients to these dangers. Thousands of physicians and midvives in the practice of their calling, in examining and operating on syphilitic subjects, or by post-mortem, are exposed. Dentists by having their fingers scratched against a rough tooth or instrument, while working on a subject whose mouth is filled with mucous patches. On the other hand, many more patients are infected by the carelessness of physicians.

SECOND DAY—MORNING SESSION.

Dr. W. H. Elliott, of Savanah, addressed the Association on "Elastic Constriction as a Hæmostatic Measure," his remarks being a review of Senn's method. He said the Association was familiar with Esmarck's method, which consisted in putting on an elastic bandage from the periphery slowly and gradually so as to empty the limb of blood, putting it on up to a point just above where the surgeon is going to operate. He then puts on a narrow elastic band at that point so as to cut off the circulation from the limb entirely, then removing the compression bandage to go on with the operation, which he had fitly called "a bloodless operation." Esmarck was not the inventor of the bloodless operation, but surgeons were indebted to his genius for improving its technique and for making this established method a popular procedure in surgery. The speaker then stated the two grave objections against the method as used by Esmarck, as advanced by Dr. Senn. The first objection was that forcible compression of blood out of the tissues by an elastic bandage was liable to send into the surrounding tissues the elements of microbic and malignant diseases. Cancer cells may thus be scattered and disseminated through the system, or the cells of pus or of tuberculosis might be sent abroad to do damage elsewhere. The second objection raised was that the constricting of the limb with a tube or a narrower bandage at one point was liable to do injury first to the muscle and secondly to the nerve. Dr. Elliott had used Esmarck's method as modified by Dr. Senn with great satisfaction.

Dr. O. H. Buford, of Cartersville, reported a rare case in obstetric practice, showing the effect of hour-glass contractions on fœtus.

Dr. W. P. Williams, of Blackshear, read a paper entitled "Persistent Remittent or so-called Typho-Malarial Fever." The author gave an analysis of a few cases of persistent remittent fever, touching its diagnosis and differential diagnosis from typhoid fever especially. He presented the clinical side of the matter, as his investigations extended no further. He presented three forms for consideration. *First*, the abortive form, or such as are immediately amenable to treatment. *Second*, the continued form with low temperature. *Third*, the continued form with high temperature. Under the first form, he was called to see the case of a negro that had been sick about a day. He found a temperature of 106°, no other striking symptom. He gave him fifteen grains of quinine, and left two other doses to be repeated at six-hour intervals. His diagnosis and prognosis were persistent remittent fever with the prospect of a long siege. He returned the next morning and found that the patient was up and gone.

The value of a diagnosis between these maladies was apparent when we came to the subject of treatment. The treatment which the speaker had followed, which had proven reasonably successful in persistent remittent fever, was the antimalarial preparation, principally cinchona and its derivatives, and arsenic, which with cholegogue cathartics (most frequently calomel) at stated intervals, applying other medicines as they were indicated. This treatment, while very beneficial in a large number of malarial cases, he would consider utterly useless and even dangerous in applying it to typhoid fever cases. The author closed his paper by saying that for every degree in rise of temperature there was a corresponding increase of heart action from eight to ten beats. In several of his cases of this fever this ratio was completely destroyed, and in some the reverse took place.

Dr. M. L. Currie, of Mt. Vernon, read a paper entitled "Periproctitis with an Abscess and Report of a Case." He said periproctitis was one of those infrequent inflammatory diseases which the general practitioner might at any time be called to treat, and which he might fail to recognize until much damage to his patient ensued. It is usually suppurative in character, but a cure may be effected by absorption even after a distinct tumor is formed. Of the cause of the disease but little can be said. It may result from traumatism, foreign bodies, extension of adjacent inflammatory processes, or any structural disease involving the mucous membrane of the rectum. The manner of its extension and the course of the morbid processes excited, are identical with those seen in perityphlitis following ty-

phlitis. The prognosis depends much upon the time when a diagnosis is made, the treatment of both the inflammation and the abscess as well as the physical condition of the patient. When the vitality is low, and the abscess high up in the pelvic cavity, or when the patient is tuberculous it is unfavorable; when otherwise, we may hope for recovery. The author then gave the diagnostic symptoms and the treatment in connection with the case he reported.

Dr. R. R. Kime, of Atlanta, followed with a paper on "Ectopic Pregnancy, its Pathology, Symptoms and Treatment." After dwelling upon the pathology and symptoms, the author summarized the treatment as follows:

1. In primary or secondary intra-peritoneal rupture of ectopic sac operate by cœliotomy at once.

2. Before primary rupture with diagnosis of tubal pregnancy extirpate cyst, tube and ovary. Fœticide for this condition by electricity and morphia injections are but temporary expedients suitable for cases of doubtful diagnosis, or where a competent operator cannot be obtained. Their use only allures patients into a false hope of security when delay is dangerous. If diagnosis could be made in the first three or four weeks of pregnancy then electricity might accomplish more potent results.

3. With extra-peritoneal primary rupture into broad ligament in early weeks of gestation producing pelvic hematocele, wait for absorption of effused blood; if it fail, then perform cœliotomy or vaginal drainage.

4. If child survives primary rupture of tube into broad ligament, do not commit murder, keep a clean conscience toward God and man, let fœtus live, keeping patient under strict observance ready to operate at any time when life of patient demands it, or fœtus has at least reached a viable period. By waiting for development of fœtus and cyst as Tait claims, the peritoneum is pushed up on the side in which they are located, so that in later months of pregnancy a lateral incision will enter cyst, and fœtus may be extracted without entering abdominal cavity.

5. Surgical interference should be the rule in all cases of ectopic pregnancy reaching full term even after spurious labor and death of fœtus.

Dr. Luther B. Grandy, of Atlanta, read a paper entitled "A Board of Medical Examiners; the State's Medical Duty," in which he suggested, in November last, the advisability of taking steps toward the establishment of a board of medical examers in Georgia. The question under discussion was one which touched every home in Georgia, into which sickness or accident would surely come at one time or another. There were two classes of so-called doctors from whom the people of this and every State need to be protected. One was the ignorant practitioner without capacity, the other was the unprincipled charlatan without conscience. The absence of such a board and the fact that a diploma was a license was but throwing down the bars to all the incompetent and fraudulent who were being rejected in other places. And here was the point of the matter which was of the most interest to physicians, because it had such a bearing upon the *personnel* of the profession of the State. If the medical profession in Georgia was to be made up largely of those who had been refused by other States on account of incompetency or dishonesty, then it was time we were entering our protest at once. There were about 2,700 physicians in Georgia, and still they came, and all were welcome. None were ever rejected. By a reasonable estimate about 700 of these would have been declared unqualified in other States. There had been nearly 400 rejections by the Virginia and North Carolina boards within the last seven years. What became of all those persons who were examined and declined by the boards of New Jersey, Virginia, North Carolina, Florida, Alabama, Illinois, Minnesota and other States? Our neighbors, Alabama, South Carolina and Florida, have rejected respectively 20, 29 and 30 per cent. of their applicants. Where do these people go? As for the quacks, when driven from one place they quickly take refuge in another. They change their sky but not their affections (*Cœlum, non animum, mutant*). Like other moving bodies they travel along the lines of least resistance until they find some place still willing to receive and patronize them. Dr. Grandy closed by saying that if Georgia would like to divorce the right to practice medicine from the empty honor of having a diploma; if she would like to bring about

higher standards in her medical schools and stimulate her students to higher aims; if she would like to improve the *personnel* of the medical profession in the State and endeavor to make it what it should be, an intelligent, honest and conscientious body of physicians; then let there be established a Board of Medical Examiners who shall be untrammeled of any college connections, and who shall determine whether a given applicant is qualified to practice medicine in Georgia.

Dr. Arthur C. Blain, of Macon, contributed a paper entitled "The Practice of Medicine in Georgia." He called attention to the want of laws governing the practice of medicine in the State. He also emphasized the importance of creating a State Board of Medical Examiners. Georgia was made a dumping-ground for all who failed to pass the requisite examination to obtain a license to practice in Virginia, Florida or Alabama. State Boards not only afforded protection to the people from charlatans and unqualified practitioners, but exerted a salutary influence towards elevating the educational standard of the medical profession. The speaker recommended that a committee be sent to Atlanta during the next session of the legislature to assist in formulating and passing some good law that would meet the requirements of the case.

Dr. J. C. Avery, of Atlanta, followed with a paper on "State and Municipal Hygiene."

The three papers were ably discussed by Drs. C. D. Hurt, R. O. Engram, Willis F. Westmoreland, W. H. Elliott, F. W. McRae, M. B. Hutchins, and a committee of one from each congressional district appointed for the purpose previously outlined.

SECOND DAY—AFTERNOON SESSION.

Dr. C. D. Hurt, of Atlanta, read a paper entitled "Etiology of Puerperal Eclampsia; its treatment, with report of some Typical Cases." After a careful study of various authors and summing up his observations and experience at the bedside, the author felt warranted in offering the following conclusions: (1) That eclampsia gravidarium in every case is the result of some influence which is directly or indirectly exerted upon the nervous system causing a derangement of its functions. (2) That such influences may exist singly or be cooperative, and that such influence may be direct violence or mechanical pressure. (3) That one or more of these influences may reach the nervous system by absorption or through the circulation. (4) That by chemical changes wrought under certain conditions in the system, toxic elements may be created and proved deleterious. Again, certain elements are harmless as they exist in normal proportions in the constitutions, but exert a toxic influence in abnormal quantities. Urea as a toxic element abnormally increased by retention in the system is assigned by many as the most frequent cause. Yet there are some who do not hold to this opinion. All admit that eclampsia and uræmia coexist in a very large per cent. of cases, while they disagree as to their relation of cause and effect. Furthermore, all admit that uræmia cannot be found to exist in every case of eclampsia, therefore, other causes than uræmia can and do produce eclampsia. That in every case irritation may and does exert an influence which materially aids in bringing on a seizure, and that in many cases this irritation intensified by protracted labor, hard pains, unyielding os and exhaustion of the nervous system develops eclampsia. That a plethoric condition of the patient, full habit, distended blood vessels, increased susceptibility to an apoplectic condition and excessive irritability, and that with this plethora a crowding of the blood into the lungs and upon the brain materially interfere with the functions of the nervous system. That the emotional system is not silent in some women, and that it helps to precipitate the fit.

Dr. H. McHatton, of Macon, read a paper entitled "Four Women who Refused Oophorectomy and their Subsequent Histories." The author gave a brief resume of the histories of the only four women that he had ever known who refused the operation. The time that had elapsed since it was advised varied from eighteen months to twelve years. The speaker made the point that in each case the operation was advised and urgedby gynecologists of standing both North and South; consequently they must have been convinced that they were cases demanding operative interference. In a practice of twelve years he had had occasion to rec-

ommend the removal of the appendages once, excepting cases of ovarian tumors, and that one proved to be a case of pyosalpinx. Several of his patients had drifted into other hands and had oophorectomy performed, and as far as he could learn had been disappointed in the results each time. The best men in this special line of work were doing the operation less and less each year. Their place was being amply filled by lesser lights, with smaller numbers of individual cases, but with a yearly aggregate that is terrible to contemplate. By what combination of circumstances could one man, to fame unknown, in a small interior city, and in a short space of time, find 144 cases demanding abdominal attention?

Dr. C. H. Peete, of Macon, contributed a paper on "Partial Tenotomy, A Radical Cure for Heterophoralgia." The author finds that the majority of cases suffering from heterophoralgia are those of young adult life, or that they have been sufferers since that time. He accounts for it by the fact that we know in order to cause it the patient must concentrate his vision on an object, and the length of time of this concentration governs the intensity of suffering. In children the vision is never fixed on any part for a length of time, consequently the symptoms are not brought on. In young adults, who have acquired the habit of hard study and constant close work, it occurs frequently, and we will find in most cases that it commenced with the time of their beginning to work or a short time after. The muscle tests should be applied to every case that came to the occulist for refraction work, and when he finds these deviations existing he should resort to the radical relief, partial tenotomy.

Dr. F. W. McRae, of Atlanta, read a paper entitled "Stone in the Bladder, with Report of Cases." He dealt with the etiology, symptomatology and treatment of stone in the bladder, purposely avoiding extensive details and references to authorities. The chief predisposing causes were defective digestion and assimilation, due either to improper diet, to a preponderance of solid over liquid ingesta, or too high living coupled with insufficient exercise and imperfect oxidation. There is an excess of the solids of the urine. These are only predisposing causes and others such as mucous, pus, etc., due to inflammatory conditions of the urinary mucous membrane, must be present before stone in the bladder will result. A history of nephritic colic not followed by the expulsion of the gravel through the urethra would naturally lead us to suspect the formation of stone in the bladder when followed by irritation of that viscus. Only when the stone can be felt by the searcher and the characteristic click elicited are we sure of the presence of calculus in the bladder. In one of the cases which the author reported the symptoms were characteristic of stone in the bladder, although no stone was found. The operation was a brilliant success in relieving the patient of a most violent cystitis of long standing. The author then dealt with the methods of treating stone in the bladder and said that no method had so wide a range of applicability and as low a death rate as litholapaxy (Bigelow's operation). He had, however, no personal experience with it, as the cases thus far presenting themselves to him were such as might be best treated by other procedures. This operation offered much the best results except in very young children, very large or very hard stones, or where there was co-existing tight organic strictures or enlarged prostate of such character as to prevent the introduction of the lithotrite, or where there was a violent cystitis associated with stone. For large stones associated with prostatic or vesical tumors the high operation was undoubtedly far superior to the perineal operations. Small stones associated with stricture of the deep urethra or violent cystitis were best treated by the median operation. Nor was the lateral operation to be entirely set aside for the now more popular operations of litholapaxy and supra-pubic lithotomy. Each of these operations had its proper field of usefulness, and it was only by a careful selection of the methods of treatment that the best results were to be obtained.

Dr. W. R. Googe, of Abbeville, reported a case of fracture of the skull with protrusion of the brain substance and removal of same.

THIRD DAY—MORNING SESSION

Dr. J. B. Holmes, of Rome, read a lengthy paper on "The Technique and After-Treatment of Ovariotomy." The

author offered the paper as an *expose* of the methods adopted and successfully used by him in his abdominal work. He submitted the paper with the earnest hope that it might elicit a full and free discussion from all who might be interested in this line of work. By such discussions our methods may be compared and those adopted that promise best results to our patients. No one could truthfully say that in every particular his method was the best. While we might in the main agree, yet on slight and seemingly indifferent details might hinge the successful issue of our cases. He stood ready and willing to take any suggestions from his brother surgeons if he could get better results by so doing. The author then took up each step *seriatum* of the technique and after-treatment,

Dr. Frank M. Ridley of La Grange, then delivered the Orator's Address. He selected for his subject "Woman's Relations to the Practice of Medicine."

Dr. M. B. Hutchins, of Atlanta, contributed a paper entitled "Mechanical Treatment of Some Skin Anomalies." The author dwelt upon some of the various mechanical means of removing anomalies of the skin. The destruction of superfluous hairs, of moles, birth-marks, and the various simple growths of the skin were described. In 1879, Dr. Michel, of St Louis, successfully employed electrolysis for the destruction of hairs in trichiasis. Dr. Hardaway, a dermatologist of the same city, followed the idea in the tratment of hypertrichosis. Various dermatologists had since reported upon its successful use. Hair upon the lip and face of women afforded the usual field of operation. Three to eight cells of a galvanic battery were used. For the past two years Dr. Hutchins had used some "Law" cells put together by himself, containing as the fluid an aqueous solution of sal ammoniac. For the destruction of hairs five of these were sufficient, though they had not been filled in two years. Seven of these cells sufficed for ordinary moles. To the negative pole a pencil-shaped needle holder containing a number eight or twelve sewing needle is attached, while the positive pole is provided with the usual sponge electrode. The needle is attached to the negative pole for the reason that electrolysis through the positive will leave a black dot at the point of insertion of the needle. The author prefers the needle holder having a spring for opening or closing the circuit, as this leaves the entire control of the circuit to him, the patient steadily holding the well-wetted sponge electrode in one hand instead of having to open and close the circuit by letting go or catching hold of the sponge. The needle is carefully inserted into the hair follicle, parallel to the root, until slight resistance, the bottom of the follicle and the seat of the hair papilla is felt. The circuit is then closed and the current allowed to pass until a frothy substance the size of a small pin head fills the follicle, and a small area of blanching appears around the needle. If the needle has followed the course of the hair root and remained in the follicle, the pain is less than when the root sheaths are pierced, and the frothy substance is more abundant. If the hair is easily pulled out it is reasonably certain that there will be no regrowth, but if it pulls out with difficulty or breaks off, the current must immediately be reapplied. A pair of forceps made for the purpose are used to extract the hairs.

Dr. Hutchins then reported several interesting cases which he had treated successfully by electrolysis.

The following officers were elected:
President, Dr. W. H. Elliott, Savannah.
First Vice-President, Dr. G. T. Miller, Americus.
Second Vice-President, Dr. H. McHatton, Macon.
Secretary, Dr. Dan. H. Howell, Atlanta.
Treasurer, Dr. E. C. Goodrich, Augusta.

The next Annual Meeting of the Association will be held in Atlanta.

A Georgia Editor Wants His Money.

The following is from the pen of a Georgia editor who evidently had strong feelings on the subject: "The wind bloweth, the water floweth, the farmer soweth, and the subscriber oweth, and the Lord knoweth that we are in need of our dues. So come a-runnin' ere we go a-gunnin'; we're not funnin'; this thing of dunnin' gives us the blues."—*Ex.*

In measles, when the temperature is high after the eruption has faded, there are complications.

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SATURDAY, MAY 20TH, 1893.

EDITORIAL.

MEDICAL LEGISLATION IN GEORGIA.

Dr. Grandy has been untiring in his efforts to secure a higher medical standard especially in his own state, and under his direction the *Atlanta Medical and Surgical Journal* has exercised a powerful influence towards securing legislation to this end.

The current number of his journal contains a paper recently read before the Georgia Medical Association presenting the situation as it now obtains. The bill for the establishment of a Board of Medical Examiners in Georgia, after encountering rabid opposition from sources common all over the United States, passed the Senate by a nearly four-fifths majority but got tied up in the Committee of the House so that further action was postponed until the next meeting of the Legislature. Thus the bill may be considered as still pending. This ought to be encouraging to the gentlemen interested. They commenced operations last November and it would be miraculous to have enlightened an ordinary legislature on this subject in so short a period. Had the present set back been absolute it would only have delayed victory, for accept defeat these advocates of progress could not if they would. To give up is not a characteristic of the species.

Dr. Grandy's trenchant statements are made in plain words. Some of the comments are of more than local application, and the REPORTER presents them for the benefit of every friend of medical progress.

"There are two classes of so-called doctors from whom the people of this and every State need to be protected. One is the ignorant practitioner without capacity, the other is the unprincipled charlatan without conscience. A large proportion of the citizens of any State have not intelligence enough to protect themselves against these persons. Then it becomes the duty of the State to protect them. If those who offer their professional services to the community were everywhere what they should be, both in intelligence

and integrity, there would be no cause for legislation. But the disagreeable fact remains that the medical schools of the country every year send out young men totally unqualified for practice, while there are those so devoid of every sentiment of honor that they are willing to extract their dishonest livelihood by preying upon the ignorance and credulity of those whom they are able to deceive."

"The mistake which underlies the present law, if it may in charity be called a law, is in giving to a college diploma the authority of a license. This is indeed the *fons et origo mali*. In giving too much power to colleges, actuated as they may be and often are, by personal interests, to make them the judges as to the qualifications of those who wish to practice medicine. The mission of the college is to *teach* the student; to *license* him to practice is quite a separate and distinct duty belonging to a separate and distinct power. The President of Harvard University has said: 'Why is it that admission to the profession of medicine (in Massachusetts) is at a disadvantage as compared with admission to the profession of law? The very last thing the law school or the law faculty would desire would be that their degree would admit to the bar. It is a clear disadvantage in medical education that the degree given by a faculty, a teaching faculty, should admit to the profession. The standard should always be outside, determined by another power."

"The United States is the only country in the world in which this blunder is allowed. A diploma is no guarantee of professional fitness. The value and significance of a bare diploma are diminished now by the commercial spirit which plays too important a rôle in our teaching institutions Our law-makers may not know it, but it is a fact that there are too many teachers in our faculties everywhere who appear to believe that the success of their teaching plant is proportional to the amount of money that may be gotten out of it. It is this spirit which graduates students every year and declares them competent to practice a responsible profession who ought to be sawing wood or making brick."

"The medical degree can be too easily and cheaply gotten in this country. Did you know that there are places where a diploma may be bought for a mere song, and no questions asked? A New York *Herald* reporter recently bought the title "Doctor of Medicine" from one of these for fifty dollars. There are two hundred and twenty-five "graduates" of these bogus institutions practicing medicine *upon their diplomas* in Pennsylvania. For this sort of "doctor," so-called, conceived in sin and born in iniquity, an honorable people and an honorable profession can have nothing but contempt. I do not know if there is any of this unlawfully-begotten species in Georgia; but there may be, *and his diploma is his license.*"

"One of the most important and salutary results of this sort of legislation is its effect upon medical education. The existence of so many of these examining boards in the States has been one of the most potent factors in arousing the colleges of the country to better work. The latter know and appreciate that the character and thoroughness of their teachings will be measured by the fitness or unfitness of their graduates as determined by these examinations. The consequence has been that our system of medical education has been overhauled and improved within the last five years as never before."

"In medical education the proper solution lies in the application of the Malthusian principle: "Fewer conceptions and a prolonged period of gestation." As it is, we are having a premature delivery of young doctors every Spring. They come—

> Deformed, unfinished, sent before their time
> Into this (medical) world, scarce half made up,

and there is nothing to stand between them and the people among whom they choose to locate."

"In the hands of such persons the lives of the people are not safe, and there is properly no place for them in the profession.

In Pennsylvania it has taken years of patient, arduous effort to distract our legislators from their occupation of saving the country long enough to allow common sense an opportunity to exercise itself in medical matters of importance to the public. Just now success seems certain. The Medical Examiners' Bill, as outlined in the REPORTER, has been passed by both branches of the Legislature, and is in the Governor's hands. It will hardly fail to meet his approval.

FORTIFIED AGAINST MICROBES.

It is currently reported that the Faculty of Medicine, at Madrid, has established an antiseptic operating theatre on a principle entirely novel—and equally absurd—which, according to the *Medical Press*, has received the label, "Quirofano," which is being interpreted "transparent surgery." Those lively disease germs, whose activity and cunning have circumvented all measures hitherto devised to prevent their preying on humanity, are not only to be excluded from their victims, but are to have their disappointment deepened by viewing through impermeable glass the opportunities no longer theirs.

The patient, the surgeon, his assistants, all instruments, in fact everything connected with the operation is to be intrenched within a veritable wall of glass. Thus, the patient will be kept absolutely isolated. Spectators can witness all details of the work, likewise they can hear the remarks of the operator, we presume by telephone attachment.

This is trancendental antisepticism as well as unmitigated nonsense.

The festive microbe will continue to use his ordinary means of approach, *i. e.*, the finger nails, hands, clothing and person of the operator and his asssistants who believe that the free use of antiseptic solution absolves them from an assiduous and most pains-taking effort to secure personal cleanliness by exhibition of hot water, soap and scrubbing brush.

TRANSLATIONS.

Icterus and Acute Atrophy of the Liver following Syphilis.*

H. Senator says that early manifestations of disease in the liver and uterus, accompanying syphilis are almost unknown in Germany, while they are often observed in France. The jaundice runs a course of an ordinary catarrhal form if treated specifically. The observations of Engel-Reimer's of Germany agree fully with those of the French.

Senator has had no cases under his own observation but is a firm believer in specific jaundice. Its origin is explained in various ways.

Gubler thinks it analogous to that of the exanthema. Cornil and Lanceran explain its origin by the fact of glandular swellings in the portal hepaticus. Engel-Reimers is of the same opinion. Senator is inclined to favor Gubler's views and believes it to be due to inflammatory swelling of the intestinal mucous membrane.

Of greater importance is the appearance of atrophy of the liver following syphilis. Engel-Reimers saw three cases; Senator

*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

observes two cases of characteristic atrophy of the liver.

One case has been thoroughly cured in spite of grave inter-current diseases. The diagnosis is, nevertheless, indisputable, since there are other cases on record of cures in acute atrophy of the liver, for instance those of Leure. With these two cases of Senator's there exist in the literature only nine cases of this affection following early infection of syphilis; namely, two men and seven women. Mercurial poisoning can be excluded with safety.

In discussion Fleischauer reports a case in which an autopsy disclosed a large gumma in the liver and great swelling of the portal glands, following a case of icterus in early stages of syphilitic infection.

Bauer saw a case of recovery from atrophy of the liver which died three months later from miliary tuberculosis; the autopsy showed complete nerve function of the liver.

Quincke has had occasion to observe three or four cases of early syphilitic icterus; there were a few gastric symptoms. He is inclined to believe in the theory of compression of the Ductus Choledochus by swollen glands.—Extract from Twelfth Congress f. Med. Wiesbaden. *Deutsche Med. Zeit.*, 24–93.

Treatment of Drunkeness with Strychnia.*

Dr. Kellerman, reports a case of a widow, age 66, who has been a drunkard for sixteen years. During one of her sprees she sustained a fracture of the clavicle, and during the treatment of this, the strychnia injections were used. The patient's general health was below par, and for that reason only small doses of strychnia were at first administered. The solution of strychnin nitr. 0.02 to 10.0, of this solution ¼ gram was injected subcutaneously and increased after a pause of three (3) days to ½ gram.

The patient was told that these injections were solely given as a tonic. The patient, however, complained of increased restlessness, sleeplessness, drawing pains in the limbs, etc. After the fourth (4) injection she forbade any further injection. It was noticed that after the first two (2) injections, she still took small quantities of whiskey, but later seemed to have given up.

She has not been drunk within the last thirteen months, since the treatment, her strength has increased, she is again doing light work and insists that whiskey has lost its good taste and is deteriorating in its good qualities.—*Aerztl. Mittheil. Aus. w. f. Baden.*

Clinical Contributions on the Subject of Intestinal Occlusion.*

The author's (Prof. Hofmokl) contributions, based as they are upon personal experience, are of considerable value to the profession. The position taken regarding time and kind of operation, is first, radical operation as early as the diagnosis is definitely made, the results being in favor of "too early" rather than "too late" surgical interference; and second, that each patient should have the benefit of a doubt.

Forty-four (44) cases with their clinical histories in detail, which contain numerous points of interest, and are well worthy of careful study.

The classification of the cases operated on are as follows:

Group	Classification	No. of Cases	Kind of Operation	Recov.	Imp.	Death
1	Koprostase	1	Laparotomy	1		
2	Neoplasm					
	(a) Small Intestine	3	Resection	3		
	(b) Cœcum and Ascending Colon	6	"	3		3
	(c) Sigmoid Flexure.	2	Anus preternaturalis		1	1
	(d) Rectum	2	Resection—Method of Kraske	1	1	
	(e) Vagina and Uterus	2	Anus preternaturalis		1	1
	(f) Peritoneum and Omentum	1	" " "			1
3	Cicatrical Stricture of the Small Intestine	1	Resection of Ileum and Cœcum	1		
4	Vermiform Appendix	4	Incision Laparotomy with Resection of the Intestines	1		3
5	Intra Abdominal Strangulation	8	Laparotomy	2		6
6	Gangrenous and Strangulated Hernia	9	Anus preternaturalis—Resection of the Intestines	6		3
7	Traumatic tear of a portion of the Intestines	1	Laparotomy			1
8	Occlusion of the Intestines—cause unknown	4	Anus preternaturalis—Laporatomy		1	3
	Total	44		18	4	22

In studying the results (50 per cent. mortality) we must remember that twelve cases were almost hopeless at the time of operation — *Klin. Zeib-und Streitsragen* Bd. IV., 1892.

*Translated for The Medical and Surgical Reporter by Marie B. Werner, M. D.

ABSTRACTS.

PRACTICAL HINTS REGARDING THE ADMINISTRATION OF MEDICINES OR APPLICATION OF REMEDIES.

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The giving of medicines often requires a little tact, and a knowledge of details helps exceedingly to the successful administration. Before entering upon these details, a few general remarks may be made.

First of all we would deprecate the practice often indulged in by the ignorant, and sometimes by those who should know better, of holding up the physician as a bugaboo and the administration of medicine as punishment, or, at the least, a thing to be dreaded. Medicines sometimes are unpleasant, more commonly need not be, and in any case it is the part of wisdom to prepare the way for a possible need by speaking of remedies as helpful rather than as objectionable, and of the physician as a family friend in time of need rather than as a beadle or nursery executioner.

Another general suggestion is this: Do not make a parade or fuss in getting your remedy ready. If anything of the sort be necessary, let it be done out of the child's sight and the remedy be brought when ready for administration; it may then be swallowed without objection, while, if time had been allowed, antagonism would have been excited. Make the giving of each dose as tidy as possible.

If doses are to be given frequently, or for some time, it is of help to make out on a slip of paper a schedule of hours for them, and as each dose is given, draw a line through that hour. This shows, afterwards, not only when the dose should have been given, but that it was given. The plan is especially useful to avoid confusion when more than one remedy is required.

LIQUID MEDICINES.

Liquids constitute the chief form of medicine given to children, owing to their inability, as a rule, to take other forms. If a medicine has little taste, or at least little disagreeable taste, this form is unobjectionable, but otherwise the other forms are preferable as soon as the child is old enough to take them, as in them taste can in one way or another be hidden. Medicines are sometimes insoluble and must be given in some more solid form. It should be remembered that some infants dislike to take anything into the mouth except by sucking. It is rather hard to teach such children to take even a drink of water from a cup or from a spoon. The giving of water even to the youngest suckling is always to be recommended, and it is an additional reason for so doing that by this means the child learns to take liquids from a spoon or cup, and has less difficulty in taking medicine in case an emergency arises. If a medicine is prescribed by a physician, learn from him just how it is to be given, even as to the amount of water in which each dose is to be administered. This latter point may not be important in many cases, but in another it may. For instance, saline medicines largely diluted may act upon the kidneys, while, if less diluted, they would more probably act upon the bowels.

As a rule, medicines which are in any degree pungent or which might be irritating, should be largely diluted, or water be given directly afterward. On the other hand, medicines which have a decided taste should be diluted as little as is consistent with the foregoing rule, in order that the disagreeable taste may not be unduly prolonged. It is not good policy to sweeten such medicines, but rather to give the *douceur*, whether a sweet or a tasty fruit, immediately afterward. Sometimes a decided taste, as of orange juice, in the mouth just before the medicine, is an excellent disguise, especially if it be repeated just afterward. We will speak of this more fully presently.

If a liquid is to be given in doses of a certain number of drops, especially if given frequently, much time and annoyance may be saved by mixing a number of

doses at once. For instance, suppose the physician has ordered that a drop of tincture of aconite be given every hour or half hour until certain effects are produced. The dropping a single drop thus often is sometimes difficult, especially with the agitating circumstances which attend a baby's illness. It is then better to drop into a tumbler or some other convenient vessel a certain number of drops of the medicine, it does not much matter just how many, if they be counted. Then add the same number of teaspoonfuls of water, and mix thoroughly by stirring. Evidently each teaspoonful will contain one drop of the aconite, and it is only necessary to stir the mixture well before each dose and to take up the teaspoonful, to ensure the proper quantity. If the dose were larger, it is easily gotten at by giving the requisite number of teaspoonfuls; or, if smaller, by adding a proportionately larger number of spoonfuls of water at the start. In any case drop the medicine before adding the water.

In spite of the advances of pharmaceutical chemistry it is sometimes necessary to give solutions containing acids either as such, or as helping the solution, like some preparations of iron. These solutions "set the teeth on edge," and fears are naturally entertained, and sometimes with reason, lest the teeth be injured. In such cases it is well, unless the physician has a reason to the contrary, to resort to the following device to prevent harm. Before giving the dose, dissolve a little baking soda, say, a good pinch, in a third of a tumbler of water, warm water we prefer. As soon as the acid dose is taken, let the patient rinse the mouth with the soda, which neutralizes the acid and removes the "on edge" feeling. If the child is too young to do this, wash the mouth with a rag dipped in the soda. Older children can also prevent harm to teeth by the use of a tube or straw in taking the acid.

Oily liquids require some special attention. In domestic practice, and on the whole wisely, castor oil plays an important rôle. The fact that this remedy keeps its place in spite of its well-known inconveniences is evidence of its usefulness. But its giving need not be made so difficult as it often is. If the oil is fresh and of good quality, its taste is not nearly so bad as that of many things more readily taken. If through carelessness the oil becomes rancid, it is a nauseous dose. Oils exposed to the air, especially in warm places, easily undergo changes, and the following precautions should be observed as regards castor oil, cod liver oil, emulsions of either, or of almond oil, often used in cough mixtures. Keep always in as cool a place as practicable. Before giving a dose, see that the neck of the bottle is clean on the outside. Pour out the dose carefully and clean the stopper and neck inside and out before the former is replaced; then cork tightly. The reason of this is that if a film of oil is left exposed to the air, it soon becomes rancid, and in pouring the next dose some of the rancid oil goes with it—enough to give a taste; and when the pouring ceases, the oil that returns to the bottle carries with it some of the rancid oil, enough often to set up a similar process in the bottle. Similar precautions are useful, but not so necessary, for syrups or thick solutions containing gum or sugar.

In administering oils (and we may take the castor oil as a type) it should be remembered that a good deal of the objectionableness is due to the viscidity. Therefore, first heat the spoon by immersion in hot water, or in any other way. If the child is old enough to be allowed, or to have acquired a liking for, sapid things, it is well to squeeze a little orange juice into the hot spoon, then pour in the oil and squeeze a little more juice over the oil. The heat of the spoon makes the oil flow more readily, and the juice above and below renders the oil hardly recognizable. If the baby is so young as to object to the spoon *per se*, there is no use in trying to disguise the oil, but this heating of the oil or spoon is always helpful.

This is a proper place to say that we believe that much of the disgust manifested by children for medicines is simply imitation of their attendants. When, many years ago, we were told by an old physician that children rarely objected to cod liver oil unless they had seen their elders make a face at it, we were surprised, but experience has convinced us of the correctness of the statement. So far as we have observed, more children actually like cod liver oil emulsions, for instance, than object to them.

MEDICINES IN SOLID FORM.

To little children, powders, pills, capsules and tablets are often more difficult to administer than any liquid. This is frequently so because to them swallowing has been an automatic act, and when they endeavor to swallow, even with the best intent, a small object, it is likely to lodge in some part of the mouth over which the child has little control. This, and not the covering of the taste, is the secret of the success of the old-fashioned device of hiding the pill or powder in a good-sized crumb of bread. A large and sufficiently soft bolus is thus formed which the tongue can readily manage. The draft of water acts in the same way. It can be swallowed, and with it goes the dose. This also is one of the advantages of the wafer paper used in administering medicines. Common thin white tissue paper will serve to hide a bitter powder if no better cover is at hand. It may then be taken as a pill, placed well back on the tongue and swallowed immediately with a full draft of water.

There are one or two points about the physiology of swallowing which, if understood, are helpful, namely, first, that swallowing is made easy by the action of the saliva moistening the mass to be swallowed; but if, to avoid taste, speedy swallowing without time being allowed for insalvation be required, or if by reason of fever the mouth be dry, swallowing will be more than usually difficult. Hence another reason for the drink of water. Secondly, that while the passing of the bolus to be swallowed through the mouth proper is done by the muscles of the tongue, which are voluntary muscles even if they act unconsciously, when the bolus reaches as far back as the uvula, it comes within the domain of muscles which act spasmodically and force it down the throat. Every child knows that if it allows a candy to get too far back on the tongue, it "slips down the throat." Hence, if by reason of nervousness or of anything else a pill cannot be swallowed, it is only necessary to place it upon the back of the tongue, and it must go. If there is left a sensation that it has "stuck" anywhere, a draft of water will remove it.

POULTICES.

The making and application of poultices requires a little knack or knowledge. The materials used may be various, but a few kinds only are in very common use, such as freshly ground flaxseed, ground slippery-elm bark, and bread and milk. Whatever is used, the mixture must be, when done, entirely smooth; nothing hard or harsh is admissible. If bread and milk or bread and water be the materials, the boiling water should first be poured into a hot bowl, or the water may be heated in a saucepan. In either case the bread-crumb, no crust, should be broken into it and the whole beaten together with a fork, to keep the mass as light and soft as possible. Flaxseed meal or ground elm bark may be stirred into the hot water and heated till the mass boils or steams and becomes soft. A poultice should not be so stiff as to be harsh, nor so thin as to run.

Any soft, thin fabric of sufficient strength will do for a poultice cloth. Of late years the porous materials known as cheese cloth and butter cloth have in great degree displaced others. They are very suitable to the purpose and so very cheap that they may be thrown away without thought. Bags of these materials of suitable size may be made, into which the poultice mass is filled when ready and the open side stitched up, or a suitable piece of the stuff may be laid upon a hot plate and the mass spread a ½ inch thick or more, the edges turned over and stitched together if they do not remain in place without. The poultice should be always large enough to considerably more than cover the surface to be acted upon; a boil, for instance, having a reddened surface 2½ inches across, will require a poultice 4 inches square at least.

One of the inconveniences of poultices is their drying and sticking to sensitive surfaces or to parts upon which short hairs grow. This may to a great degree be obviated by first putting oil or vaseline upon the surface of the skin or of the poultice; and both the drying and cooling may be hindered by placing over the poultice a piece of oiled silk or gutta-percha tissue, and over it again some cotton batting, the whole to be kept in place by a bandage or the like. The older method of making poultices covered on one surface only with cloth favored this sticking, but the open-textured kinds of poultice cloth mentioned may cover both surfaces of the poultice mass, one lying between the latter and the skin.

In putting on a poultice let it approach the surface to which it is to be applied gradually and put it in place as soon as the heat can be borne. It usually needs renewal in a few hours—two to four on an average.

In the absence of any suitable poultice material a temporary substitute may be found in a thick piece of cotton batting, or, still better, absorbent cotton, dipped in hot water, pressed partly dry, and applied and treated, as to covers, as advised for a poultice.—*The Mother's Nursery Guide.*

GRAFTING WITH PIGEON-SKIN.

Being called upon to attend those injured in neighboring mills, on some of whom it became necessary to do skin-grafting, and the want of a more easy method of performing the operation, says Dr. Aldrich, suggested to me that I had better try the grafting of granulating surfaces with squab-skin.

The Thiersch method of grafting has one drawback, or at least one feature that makes it appear like quite an operation to the patient and his friends, and that is the giving of an anæsthetic in order to take the grafts from the patient or some one else. The taking of human skin probably adds to the brilliancy of the operation when considered by the laity; whereas this method of pigeon-skin grafting suggests little more to the patient than an ordinary dressing does.

In my first attempt at pigeon-skin grafting I selected a pair of young squabs that were of an age when the feathers had not yet shown themselves along the under surface and under the wings. I removed the featherless skin and placed it on a healthy granulating surface, which had previously been cleansed with a four per cent. boracic acid solution. The result of this first operation was fairly satisfactory. Since this first pigeon-skin grafting I have grafted a few times.

The last time I grafted a granulating surface the operation was as successful as any one could wish. I proceeded as follows: Having killed two squabs that were about half grown, I immersed them in warm boracic-acid solution and quickly plucked the feathers; then immersing them in a clean boracic solution, I proceeded to scrub them. My next step was to skin them, removing large pieces at a time, which were immediately placed in warm sterilized water. The granulating surface having been thoroughly cleansed with boracic solution, and then with warm sterilized water, the grafts were placed upon it. Over the grafts gutta-percha tissue was placed, and then warm compresses wrung out in warm boracic solution; over these a layer of dry cotton, and then the bandage.

In my former operations the pus and the liquefied grafts had floated many good grafts and prevented their "taking." I therefore concluded to change the dressings earlier than I ever had before. About forty hours after the operation the dressings were removed, the pus and melted pigeon-skin mopped away with wet compresses; the grafts that were not melted were left in place, and over the surface was applied plain gauze with a layer of resin ointment spread on it, over this borated cotton and then the bandage.

At the end of the next forty-eight hours it was dressed again in the same way, and at the end of the following forty-eight hours it was dressed again. Since this dressing it has been dressed every third or fourth day either with boracic vaseline or resin ointment.

Observations.—Do the grafts grow by a reproduction of their own elements, or do they simply stimulate the granulations, and cause them or the tissues underneath them to take on an epithelial growth?

In one case that I grafted the surface had been stripped by cogs. In the upper part of this lacerated area was a small island of skin that was not removed, but which in time became completely lost sight of, on account of the granulations having swallowed it up, so to speak; yet, later, this same skin came to the surface, and its edges finally coalesced with the skin at the margin of the wound and also with the grafts which had "taken," in close proximity to it. The swallowing

of this island seems to me to be analogous to the swallowing of the epithelial cells, which later only spring to the surface just as this island did.

The success of this method of grafting in my hands appears to me to be equal to the success of the auto-epidermic-Thiersch method. Pigeon-skin grafting does not necessitate an anæsthetic; its failure does not discourage because squabs are as cheap as a can of ether, and you can graft without even the consent of the patient, or, in fact, the patient hardly knowing what you are doing.—*Bos. Med. and Sur. Jour.*

THE TREATMENT OF SUPPURATING BUBOES BY INJECTIONS OF IODOFORM OINTMENT.

The frequency of suppurating glands in the groin, says Dr. William K. Otis, resulting, as they may, from any one of the venereal diseases, from tuberculosis or trauma, renders this affection one with which we are frequently brought in contact and it is one which is especially obdurate to all recognized forms of treatment.

The so-called abortive treatment, either by pressure, the application of the actual cautery, the inunction of green soap, or any of the various methods which have been so frequently advocated, while ideal in conception, is so unreliable and, except in cases of very mild infection, so inefficient that when apparently it does succeed we are usually in doubt whether the gland would have gone on to suppuration without any treatment whatsoever.

The good, old-fashioned method of freely laying open the abscess and allowing it to drain and granulate for weeks, renders the patient exceedingly uncomfortable during that period, permits of the infection of other glands of the same chain and leaves a well-marked and telltale scar.

Excision of all implicated glands, the ideal method from a surgical standpoint, means a difficult and to some extent, a hazardous operation in a dangerous anatomical neighborhood, the retention of the patient for some weeks in bed and a scar, compared with which that resulting from the old method is but trifling.

On these accounts I was led, as far back as 1886, to try a method advocated at that time by Dr. Scott Helm, who withdrew the pus from the abscess cavity in suppurating buboes by means of an aspirator, washed it out with a solution of carbolic acid and refilled it with a mixture of iodol and vaseline, and who reported in August of that year, a series of twenty-three cases, only one of which remained uncured by this method.

At that time, however, while very well satisfied with two cases so treated, I was unable to pursue this method, and it was not until 1880, when Potain reported a series of forty-one cases treated by the injection of a mixture of iodoform and vaseline, one-half of which recovered in less than five days and the longest in twenty-three days, that I was again induced to try this plan of treatment.

The skin, for some eight or ten inches about the affected area was rendered thoroughly aseptic by scrubbing with green soap, washed with sulphuric ether and then douched with a solution of mercuric chloride 1-1,000. A narrow bistoury was then inserted into the abscess cavity and the contents gently but thoroughly squeezed out. The cavity was irrigated with a solution of mercuric chloride 1-1,000, and immediately filled to moderate distension with warm iodoform ointment (10 per cent.), care being taken not to use a sufficient degree of heat to liberate free iodine. The syringe used for introducing the ointment was the ordinary cone-pointed, glass, clap syringe. The plunger being removed, the barrel gently warmed in the flame of an alcohol lamp, was filled with ointment by means of a spatula and the plunger replaced. On finishing the injection, at the instant of withdrawing the syringe from the wound, a compress wet with cold bichloride solution was applied, which instantly solidified the ointment at the orifice, preventing the escape of the contents of the abscess cavity. A large compress of dry bichloride gauze was then applied, covered by a protective dressing of cotton and retained by means of a firm spica. The patient was requested to return at the end

of four days. If all was well at this time the dressing was simply re-applied, but if there were any evidences of inflammatory action, the wound was thoroughly irrigated and cleansed and the injection repeated.

Of sixteen cases so treated, nine were cured in six days, three in twelve days, one in fourteen days, one in twenty-three days, and two deserted during treatment.

The advantages claimed for this procedure are:

1st. That it is simple and safe.

2nd. In suitable cases cure, as a rule, seems to be more rapid than by any other method.

3rd. That the patient is not prevented from going about during treatment.

4th. The first gland being rendered thoroughly aseptic, renders it less likely that other glands in the chain will become infected (?)

5th. *It leaves no tell-tale scar.*

6th. It in no way interferes with the performance of any subsequent surgical procedure, if such should be deemed advisable.—*Jour. Cutan. and Gen.-Urin. Dis.*

MICROBE KILLER DEFEATED.

Dr. Robert G. Eccles, of Brooklyn, N. Y., has gained his suit against Wm. Radam, the Microbe Killer, for libel. The jury has decided that Wm. Radam shall pay to the doctor the sum of $6,000, and in addition shall pay the costs in the suit, all for the privilege of calling the doctor a charlatan and a quack. The verdict is one to be commended by everyone who is interested in the moral and professional standing of not only the physician, but also the pharmacist, as against the quack nostrum manufacturers and venders.

The people, represented by a court and jury, have decided that the nostrum makers cannot with impunity defame the good name and professional standing of men who do not cater to their questionable methods of providing remedies (cure-alls) for the ills of mankind. Radam, it seems, has gone a peg farther, and includes the diseases of the brute creation in the category of what his remedy will cure.

It will be remembered that Dr. Eccles in 1889 analyzed and published a formula for Radam's Microbe Killer, together with a lengthy article in the *Drug. Circ.* In this article the doctor very properly pointed out and held up to ridicule the enormous and inconsistent claims for this worthless cure-all. The analysis and comments upon the same must have touched closely upon facts, or else the Microbe company would not have retaliated in the unbecoming manner in which they did. They ignored the right of a chemist to analyze any substance which he pleases, and apparently held to the fallacious theory that secret nostrums are entitled to a special exemption from investigations of the analytical chemist, and that an analyst has no right to publish the result of his labors.

A few extracts from Dr. Eccles' original article on this question might very properly be quoted at this time, and which would serve well to give the gist for the emanation of the attack on the character of the doctor and his subsequent suit for damages:

"A Texas gentleman by the name of Radam, tiring of the dull drudgery of raising young trees, cabbages, tomatoes and flowers for a living, is now posing, throughout the United States, as a great philanthropist because of a wonderful discovery he claims to have made that is about to revolutionize medical science. If the reader will mix the following together he will have a product identical with Radam's wonderful 'Microbe Killer' (No. 1, there being four strengths) at a cost of less than five cents per gallon:

℞

Oil of Vitriol (impure)	4 drachms
Muriatic Acid "	1 drachm
Red Wine, about	1 ounce
Well or spring water	1 gallon.

"Mr. Radam and his agents only charge three dollars per gallon therefor, but then they throw in the jug as a part of the bargain. This nurseryman, who glories in knowing little or nothing of either medicine or medical science, evidently knows how to count cent per cent. on the first cost of his stock.

"In sheer derision of the unwarranted

broad claims of 'patent medicines' it has been customary to call them 'cure-alls.' To what manner of hyperbole shall we now resort when the proprietor of this new compound guarantees it to be a *never-failing cure for everything?* (Italics ours.) It is positively asserted that 'there is no disease in the *world* that will not yield to the microbe killer." Mr. Radam starts out with the intention of out-quacking the worst of quacks of this or any other age. If boldness of claim and dense, dark, crass ignorance of the subject, he pretends to know best, count for anything, then surely, he takes the lead of all who have preceded him on the same route.

"The company bearing his name, and presumably by his consent, send out descriptive pamphlets that are marvels of inaccuracy, and manifestations of phenomenal ignorance in bacteriology. Sulphuric acid the principal constituent of the 'microbe killer' outside of water, is a slow but cumulative poison. The kidneys are unable to excrete it, and after absorption from the stomach into the blood it has to return back into the alimentary track lower down and pass off with the fæces. Stillè in his 'Therapeutics and Materia Medica' says of it:

"'By habitual use this acid becomes very injurious to the teeth, even when greatly diluted, it whitens them, indeed, but also corrodes them. It also, sooner or later, enfeebles the digestion, produces colicky pains and diarrhœa, and impairs nutrition. Marasmus and even death may be the ultimate result of its use.'

"This is the stuff ignorant people are being beguiled into paying 6,000 per cent. profit to secure a diluted supply of. Where are our boards of health, and what are they doing that these men are allowed to urge everybody who suffers, however little, from any malady to take it indefinitely? Their claims are false, as all who are posted upon the subject know. It is downright humbuggery to speak of all diseases being caused by microbes. What can be the object of this Microbe Killer company in telling the public that physicians give their remedies solely to kill microbes? Surely they must know that this is as far from the truth as mortal man could possibly get. When this company tells us that fungi are animals they cap the climax in the ridiculousness of their position."

At this point the doctor discusses from the modern scientific standpoint the action of acids and alkalies and other antiseptics upon microbes, and shows conclusively the accepted scientific theory of the varied effects upon different germs, and furthermore shows that all diseases do not originate from one and a certain microbe, hence are not susceptible to, and cannot be controlled or cured by one universal remedy. He further states "that Radam's claim is simply laughable to all who know the nature of microbes. If the man (Radam) had ever known anything about the subject, so lamentable an abberration of mind would be clear proof of insanity."

While the article treats somewhat exhaustively upon the subject, it should not be regarded as tedious, for the points brought forth against the extravagant claims of quacks not only hold good in the case of the Microbe Killer, but also in regard to all other quack nostrums for which such broad, incongruous claims are made.

There can be no doubt that no more objectionable or pernicious class of goods are to be met with on the market than a large majority, if in fact, not all of the worthless nostrums which buoy up by false representations the failing strength, for a time, of the really afflicted, thus leaving the patient, when the false hopes have collapsed, in a condition from which recovery by proper medical treatment is far more difficult, and in many cases next to impossible. Not only this, but many times the fears and anticipations of disease in the minds of the hale, though weak-minded, are excited by the platitudes of the quacks, and in so far as this influence extends just so far are they robbing the poor and innocent of hard-earned money. —*New Idea.*

One Ray of Comfort.

"Hello, Rivers! You seem to have a bad cold."

"Worst I ever had, Banks."

"I'm sorry for you, old fellow. Wish I knew of something that would cure you, but I don't."

(With tears in his eyes.) "Give me your hand, Banks! You're the only man I've seen for three days that hadn't a sure cure.—*Chi. Trib.*

CURRENT LITERATURE REVIEWED.

THE AMERICAN JOUNAL OF OBSTETRICS for May contains an article by Dr. Charles P. Noble on

Certain Problems in Abdominal Surgery, based on One Hundred Celiotomies.

The author declares the essentials of success in abdominal surgery are:

I. Early operation.

II. Careful preparation of the patient, with especial reference to stimulating the emunctories and to securing asepsis of the abdominal wall.

III. An aseptic operating room.

IV. Aseptic hands and instruments for the surgeon.

V. As great rapidity in operating as is compatible with careful, thorough work.

VI. Irrigation and drainage in septic cases.

VII. Careful after-treatment, embracing especially the withholding of fluids for about forty-eight hours, early purgation and at least three weeks confinement in bed.

The advantages to the patient of early operation are carefully considered in the paper and the dangers of delay pointed out. The question of drainage is also thoroughly gone into and the results of various operators without drainage noted. The author believes drainage to be of great service in septic operations and in those cases in which it is necessary to separate many vascular adhesions. As to the charge that glass drainage produces fecal fistula, the author thinks that the Scotch verdict of "not proven" must be returned. The paper includes tables showing the disease for which the operation was performed and the results of operation. The report also includes several cases of post-operative ventral hernia. The author regards as causes of post-operative ventral hernia:

I. Extreme malnutrition of the patient when operated upon.

II. Failure to approximate the divided transverse aponeurosis.

III. Suppuration of the abdominal wound.

IV. Drainage.

V. Early rising from bed.

VI. Too early return to work.

VII. Failure to wear a bandage (?).

Dr. Mary A. Dixon Jones concludes her scholarly paper on

Colpo-hysterectomy for Malignant Disease.

The later statistics of the operation are given, the literature of the subject having been consulted down to the present year. The author unhesitatingly decides in favor of complete removal of the uterus as against the amputation of the cancerous cervix, quoting from various operators to fortify her position. The limits of vaginal hysterectomy are also discussed and the technique of the operation minutely described. The author decides that the vagino-peritoneal opening should not be closed as the drainage in these cases is often great and the open method allows of its proper discharge. She has found that the best results are obtained by removing the dressings a few hours after operation and, after the first day, once in twenty four hours till the wound is healed. She has also found that the ealier and freer the evacuations of the bowels the better for the patient and, as after laparotomy, she has usually tried to have a free evacuation of the bowels on the second day. In regard to the question of the use of forceps or ligatures in securing the broad ligament the author states that she uses either as the circumstances of the case make most convenient.

Dr. George J. Englemann reports.

An Unique case of Extra-uterine Fetation.

The patient had been treated for pelvic trouble for which operation had been proposed and declined by the patient. The patient gradually recovered her health and some years later was seized with an attack of abdominal cramps, as she stated, for the purpose of deceiving her attendant, being unmarried and probably fearing pregnancy. She gradually became septic and died; the post mortem revealing a tubal pregnancy, an illustration of which is given in the paper. Dr. Englemann states that he saw the patient but casually during her last illness and urged the necessity of operation, in which opinion the attendant did not concur. Dr. Englemann also states that the symptoms pointed rather to appendicitis than an extra-uterine gestation.

Dr. Charles A. L. Reed reports a case of "The Second Occurrence of Ectopic Gestation in the Same Patient." The second operation was performed for intestinal obstruction, the ectopic gestation being accidently discovered during the operation. The patient recovered.

Dr. M. F. Cuthbert reports cases of "Acquired Venereal Disease in Children."

Dr. S. Marx discusses

Duehrssen's Methed of Deep Cervical Incisions in Cases Requiring Rapid Delivery.

The author gives the indication for the procedure as follows: "In the great majority of cases the operation is permissible shortly before or during labor, when the supra-vaginal portion has disappeared. Upon this point Duehrssen lays particular stress. Where the supra-vaginal portion is present he advises that blunt dilatation with the finger or instrument should precede his incisions, they being made only when the supra-vaginal portion has nearly or entirely disappeared. In multiparae where the supra-vaginal portion is abnormally rigid or consists of cicatricial tissue, as from an old cervical laceration, incision of the supra-vaginal portion may be called for. The operation, according to Duehrssen, is also indicated in the rigid os of old primiparae where the ordinary remedies fail; in cases of premature artificial rupture of the membranes; placenta previa; eclampsia, especially in primiparae; prolapsus funi in old primiparae; in cases of flat, rachitic and generally contracted pelves to afford the

accoucheur the oportunity to apply the forceps at the time when the position of the head is most favorable." To the author's mind the operation is called for, in an overwhelming majority of cases, by eclampsia. For these cases he does not know of one operation where speed and rapidity of action can be so relied upon as in the procedure recommended in the article. In both the cases reported by the author in his paper, the interval was less then fifteen minutes from the time the cervix was incised until the delivery of the placenta. "Another condition, not mentioned by Duehrssen, where the operation must be of signal assistance, is in accidental hemorrhage before or during labor. "In these cases little, if anything, can be done before the uterus is emptied." As to the method of operation — "Duehrssen advises the use of a pair of scissors of large size. It is necessary to thoroughly disinfect the vaginal tract and vulva. The lower uterine segment is seized through the speculum by a pair of stout bullet forceps, and the tissues cut, dividing the cervix from the vaginal junction down. This is done on four sides." In his own cases the author used a long sharp bistoury, believing that the incisions can be more carefully done and that the cut is cleaner than by the scissors. No speculum was used. "The uterus is steadied by a pair of bullet forceps. The index finger is carried into the cervical canal to a point corresponding to the cervico-vaginal junction. The knife, guarded by and between the index and middle fingers of the other hand, is passed along the vagina to the junction of the cervix and vagina. When the fingers of both hands meet, the point of the knife is pressed against the finger inside of the cervix and both are withdrawn at the same time, the point of the knife continually in contact with the finger to prevent its injuring the vagina. This manoeuvre is repeated until the incisions are made on four sides. In those cases in which the supra-vaginal portion is present the advice given is somewhat modified. Blunt manual or instrumental dilatation until this portion has nearly or entirely disappeared — i. e., merged into the uterus — should be followed by the deep incisions." In the two cases which the author reports in his paper, he did not meet with any serious hemorrhage and the only remaining trace of the operation after recovery was a slight stellate laceration of the cervix.

Dr. Reuben Peterson reports "A case of Rupture of an Ovarian Cyst." The site of rupture was clearly shown in the cyst wall at the time of operation, nearly a year subsequently.

Dr. Irving W. Smith contributes a short paper on the

Surgical Treatment of Cranial Infraction in a New-born Infant.

The mother was a dwarf and the labor required the use of forceps. The presentation was right occipito-anterior. The application was high, and the impingements of the tips of the blades of the Hodge instrument were on the left frontal eminence and over the right ear. During extraction a sense of something giving way was felt for a moment and on emergence of the head there was found a depression of the cranium on the right side of the frontal bone. The child was large and vigorous, but it hardly slept or nursed and was restless and crying constantly. On the fourth day it was decided to treat the case on general principles. The infant was anaesthetized, the scalp opened and the bone divided by Hey's saw transversely to the depression axis. The bone was lifted by the elevator applied successively on either side of the saw track. A slender, long spicule was removed. There was some free venous hemorrhage but no shock, and the child slept and nursed normally from the hour of the operation. Primary union followed and a month later the infant seemed perfectly well." The reporter believes the injury was caused by unskillful application of force, bringing the injured part across the promontory of a strongly curved sacrum.

Dr. J. N. Martin, reports a case of "Fatty Uterus — Removal — Recovery." After the operation, an examination of the uterus revealed the cavity surrounded on all sides by fat from two to three inches in thickness; this was surrounded by the serous membrane with a few fibres of muscular tissue, in all about one-sixty-fourth of an inch in thickness. The operation was performed for persistent menorrhagia.

THE VIRGINIA MEDICAL MONTHLY

For May contains an open letter from Dr. G. Frank Lydston to Dr. Hunter McGuire on the subject of

Sexual Crimes among the Southern Negroes Scientifically Considered.

In his letter Dr. Lydston reviews the whole negro question in a thorough and impartial manner, maintaining the middle between wholesale condemnation and sickly sentimentality. The demoralizing effect of sudden freedom, with the accompanying necessity for independent thought and action, in a race accustomed to being thought for and taken care of and but little removed from absolute savagery, receives proper attention as one of the factors. He also alludes to the want of morals which, sometimes existed between master and slave under the old regime, as perhaps accounting somewhat for the condition.

Dr. R. A. Lancaster discusses the subject of

Simple Continued Fever.

The name is objectionable in that it gives no idea of its etiology or pathology; but until its cause is better understood, and its pathology further investigated we must be content with a name which does not mislead if it gives no information. He believes that the *materies morbi* of this fever is an unclassified germ, entirely different from the germs of typhoid or of malarial fever. The only evidence he has to offer in support of this theory is taken from a clinical standpoint, but he believes the day is not far distant when the microscopist and the bacteriologist will sustain this view. It has been

his observation that this fever is more prevalent in spring and early summer, before the advent of our rainy season, and that it occurs more frequently where the surroundings are unsanitary than where thorough sanitation prevails. The evidence would go to prove that, like typhoid fever, the cause of simple continued fever is of animal origin; but, while its habitat may be the same as the typhoid bacillus, its manifestations are as unlike and distinctive as are those of variola and varicella, as measles and scarlet fever. It has *per se* but one constant and essential symptom and that is pyrexia. All the other manifestations are the result of pyrexia, and are as varying as are the effects of pyrexia on different individuals. There seems to be good grounds for the popular belief that this fever, as well as other forms of continued fever, is likely to leave on some multiple of the seventh day. Oftentimes there will be an abrupt termination on the fourteenth or twenty-first day with no subsequent rise. At other times the first complete remission will occur on these days—the temperature being normal or subnormal for one, two or more hours, with a rapidly shortening period of pyrexia each day. For treatment he uses calomel in two grain doses combined with soda, every two hours. As a means of diagnosis and to eliminate any malarial element he gives quinine in fifteen to twenty grain doses *per diem* for the first three days. The antipyretics he has also found of service. Cool sponging or a cold douche to the head are of advantage.

Dr. George M. Kober contributes a paper on "The Etiology, Distribution and Prevention of Land and Ship Cholera," reviewing the characteristics of the bacillus, the causation and symptoms of the disease and the precautionary measures that should be taken to prevent its importation or to suppress an outbreak.

Dr. Johnson Eliot reports a case of Mastoid Abscess and discusses the subject of

Mastoid Disease.

In all severe cases of inflammation of the middle ear there is more or less involvement of the mastoid. We may have inflammation of its periosteum or caries with formation of abscess in some part of the cavity, the first often arising from acute catarrh. Caries and necrosis when found in the mastoid, are due to imperfect removal of pus. Sclerosis and hyperostosis sometimes result from mastoiditis. Pain, tenderness, redness and swelling in the mastoid region, direct us in making a diagnosis. Neglected cases may discharge externally and relief be obtained. Pus may be carried through the mastoid vein and enter the lateral sinus, causing pyæmia. Paralysis of the seventh nerve may occur on account of its passing through the Fallopian canal. Erysipelas and abscess of the neck, and also brain symptoms, may develop. Cases of congestion and periostitis of mild type usually yield to a few leeches followed by poultices. If these are not effectual, a Wilde incision should be made. Slight hemorrhage occurs from the posterior auricular artery. The depletion will be beneficial even though pus be not present. It is best not to delay the operation after the diagnosis has been made in the hope that necrosis will cast off the bone. Anodynes and leeches do not relieve the pain, which is relieved by firm pressure. Often, where there is a purulent discharge into the external meatus, we find granulations. In the more severe cases, after making an incision to the bone, immediately back of the auricle, an opening to the bone should be made; or, if an opening exist already it should be enlarged. An ordinary dressing should be used and the wound allowed to granulate from the bottom. Sulphide of calcium seems to exert an influence over suppurative diseases of the ear as well as elsewhere.

Dr. DeWitt Webb contributes a paper on "The Influence of Immaturity and Degeneration in Some Forms of Thinking—Especially Sexual Thinking."

Dr. Stuart McGuire discusses "Drainage after Abdominal Section," reporting a case where the tumor removed weighed seventy-seven pounds. The patient made an uninterrupted recovery. His conclusions are: In simple cases, use drainage by purgation. When complications indicate direct drainage, use the glass tube. When combined hemotasis and drainage are required, or adhesions desired, use the gauze. In some cases a combination of the different methods is advisable.

Dr. Edwin L. Morgan contributes an interesting paper on "Syphilis — Its Age and Relation to the Antiquity of Man." The literature on the subject is carefully and thoroughly considered in regard to the existence of prehistoric syphilis both in America and in Europe. The author is not a believer in the American origin of the disease and believes that it is as old as our race. "As to its origin or whence it came, the *silent* page of history can only tell."

Dr. Benjamin H. Brodnax describes an "abdominal corset" used by him in cases of "Chronic Fermentative Diarrhœa in Children, due to torpidity and relaxation of the bowels." He combines the use of the appliance, (which is made of a strip of cotton flannel long enough to reach from the pubes to the breast bone and wide enough to reach nearly around the abdomen, and fastened at the back by means of tapes) with the small doses of salol. His idea is that the intestines are distended by fermentative gases and cannot force out their contents or absorb the nutrient juices necessary to life. By compressing the abdomen, the intestines regain their normal contractility, and by emptying themselves, cure is set up; "and the peevish, fretful infant, relieved of the constant neuralgia of the bowels, becomes happy and healthy."

Dr. B. F. Travis discusses the subject of "Acute Purulent Inflammation of the Middle Ear." Other papers are: "Imperfect Articulation, Stammering etc.,—Their Cause and Cure" by Dr. Frederick Sohon; "Multiple Retro-pharyngeal Abscess" by Dr. John Dunn; and the report of a "Case of Supra-pubic Cystotomy" by Dr. Charles Minor Blackford, Jr.

PERISCOPE.

MEDICINE

Faults in Voice Production which Lead to Voice Disease.

Lennox Brown (*Jour. Lar., Rhin, and Otol*). Defects in methods of speaking and singing are much more potent factors in production of voice failure than diseases of throat and nose. There are three elements concerned in the formation of the voice, which may be seat of the defect.

First. The *motor*, that is the lungs representing respiration.

The lungs should be inflated by means of the diaphragm and intercostal muscles, avoiding collar-bone breathing.

The breath should be economized in allowing it to escape from the lungs, and breath should not be taken too frequently.

The "attack" upon a tone should be calculated with just enough force to permit the proper adjustment of the vocal bands for that particular tone, faulty attack causes a lack of co-ordination.

Second. The *vibrating* element, situated in the larynx.

The most common defect here is carrying the registers too high before changing to the one above, and tremolo and vibrato.

Also raising the pitch of the voice instead of raising the voice itself.

Third. The resounding element, dependent upon properly shaping the resonating cavity, that is the chest walls, windpipe and all the pharyngeal and nasal cavities.

Also want of contracting power of soft palate. Voice gymnastics can accomplish much in overcoming these defects.

For Chronic Bronchitis and Emphysema.

℞

Ammonii carbonatis.....	gr. iv.
Tincturae scillae.....	mxx.
Spiritus aetheris.....	mx.
Tincturae nucis vomicae.....	mx.
Infusum serpentariae ad.....	ʒj.

Misce et fiat misturr.

Two tablespoonfuls every six hours.

—*Ex.*

GYNECOLOGY.

Varicocele In Women.

The foreign correspondent of the St. Joseph *Medical Herald* says: To change the subject, what do you think of the lately enunciated opinion that varicocele is quite as frequent in women as it is in men, but that we do dot know its symptoms? A late work on the subject by M. Roussau, who had seen the cases in Dr. Pozzi's wards, explains this malady which is called "pelvic varicocele." It has been noticed in making laparotomy and hysterectomy, and in autopsies made on women, that varicose dilatations of the pelvis are very common, just as hemorrhoids and varicose veins of the leg are in women. Pelvic varicocele comes from any cause that brings about any interference with the venous circulation of the pelvis, such as tumors, cysts of the ovary, as well as the large class of fibroids, etc. There is also a general state that predisposes to this malady; a sort of atony of the smooth fibers of the muscular structure of the veins, which is very often under the influence of certain diseases. The symptoms of varicocele in women are analogous to those in man; pain in the left side of the pelvis, running downwards into the groin and back upwards to the lumbar region, with feeling of weight in the part, most felt at the monthly period. It goes away when the patient is lying down, and comes back when she walks. In making an exploration, varicose veins may be seen on the labia majora and the finger will find a tumor that is soft and painful to pressure. This will be more prominent when the patient is standing. By the rectal touch it can be felt very well, and may be taken for salpingitis. The symptoms are not very evident in many cases but the malady should be sought for however, in all varicose cases. The treatment must address itself to the cause, but in case of pain, rectal injections of laudanum solution are ordered, while the patient is kept in bed. To diminish the congestion and help the circulation along, hot water rectal injections are used, with a rectal sound that will carry the water some eight or ten inches up; a small porcelain ring is held in the anus to allow the water to flow away, and as much as five or six quarts are used. A vaginal tampon is also advised, to make compression on the vessels. Hydrastis canadensis and hamamelis are given internally.

NEWS AND MISCELLANY.

Haydn's Sacred Oratorio, "The Creation," will be sung for the benefit of the Methodist Episcopal Hospital, by a chorus of 300 voices, under the direction of Caspar Fischer, Jr., at the Academy of Music, Thursday Evening, May 25, 1893. Germania orchestra. Soloists: Madame Seulke, Soprano; Leonard E. Auty, Tenor; Emil Fischer, of New York, Basso. A. Rittenhouse, D. D., Supt. of Hospital.

ARMY AND NAVY.

U. S. ARMY FROM MAY 7, 1893, TO MAY 13, 1893.

Captain Louis Breceemin, Assistant Surgeon, U. S. Army, is relieved from duty at Presidio of San Francisco, Cal. and ordered to Columbus Barracks, Ohio, for duty.

1st Lieut. Charles Willcox, Assistant Surgeon, relieved from temporary duty at Angel Island, Cal. and ordered to Presidio of San Francisco, Cal. for duty.

Leave of absence for 20 days, to commence about May 24, 1893, is hereby granted, Major Curtis E. Munn, Surgeon, U. S. Army.

Leave of absence for one month to take effect June 1, 1893, is granted Captain Walter D. McCaw, Assistant Surgeon, U. S. Army.

By direction of the Secretary of War, leave of absence for six months on account of sickness, is granted Captain Robert B. Bevham, Assistant Surgeon, U. S. Army.

Captain Richard W. Johnson, Assistant Surgeon, relieved from duty at Fort Bowie, Arizona, and ordered to duty at Washington Barracks, D. C.

Captain William J. Walkemac, Assistant Surgeon, relieved from duty at Fort Bidwell, California, and ordered, to Fort Thomas, Kentucky, for duty.

A board of officers to consist of

Colonel Charles T. Alexander, Assistant Surgeon General

Lieut. Col. George M. Sternberg, Deputy Surgeon General

Major John Van R. Hoff, Surgeon, is appoited to meet, at the call of the president there of, at New York City, for the examination of such officers as may be ordered before it, with a view to determining their fitness for promotion.

Captain Curtis E. Price, Assistant Surgeon, ordered to report in person to the president of the examining board at New York City, for examination for promotion

Captain Blair D. Taylor, Assistant Surgeon, will report in person to Lieut. Col. Dallas Bache, Deputy Surg. General president of the examining board, convened at Omaha, Neb. at such time as he may be required by the board for examination as to his fitness for promotion.

U. S. MARINE HOSPITAL SERVICE FOR THE FOUR WEEKS ENDING MAY 6TH, 1893.

Bailhache, P. H., Surgeon, to report to Superintendent of Immigration for temporary duty, April 24th, 1893.

Purviance, George, Surgeon, detailed as Chairman Board of Examiners, May 6th, 1893.

Gassoway, J. M. Surgeon, granted leave of absence for two days, April 19th, 1893, detailed as member of Board of Examiners, May 6th, 1893.

Stoner, G. W., Surgeon, detailed to represent Service at International Congress of Charities, etc., Chicago, Illinois, May 3rd, 1893.

Irwin, Fairfax, Surgeon, to proceed to Naples, Italy, for temporary duty, April 17th, 1893.

Carter, H. R., Surgeon, detailed as Recorder Board of Examiners, May 6th, 1893.

Wheeler, W. A., to proceed to Europe as Inspector, April 17th, 1893.

Banks, C. E., passed Assistant Surgeon, to proceed to Grasse Isle Quarantine Station, Canada, for duty.

Carrington, P. M., passed Assistant Surgeon, to proceed to Hamburg, Germany, for duty, April 17th, 1893; to proceed to Marseilles, France, for temporary duty, April 28th, 1893.

Geddings, H. D., passed Assistant Surgeon, to inspect Fisherman's Island, Virginia, May 6th, 1893.

Stimpson, W. G., Assistant Surgeon, to proceed to Quebec, Canada, for duty, April 29th, 1893.

Stewart, W. J. S., Assistant Surgeon, to report at Washington, D. C., April 22nd, 1893.

Branham, J. W., Assistant Surgeon, to proceed to New York, N. Y., for duty, April 21st, 1893.

Sprague, E. K., Assistant Surgeon, to proceed to Charleston, S. C., for duty, April 21st, 1893.

Prochazka, Emil, Assistant Surgeon, to proceed to Ellis Island, N. Y., for duty, April 18th, 1893.

APPOINTMENTS.

John W. Branheim, Virginia, commissioned as Assistant Surgeon, April 19th, 1893.

Ezra K. Sprague, of New York, commissioned as Assistant Surgeon, April 19th, 1893.

Emil Prochazka, of Wisconsin, commissioned as Assistant Surgeon, April 19th, 1893.

PROMOTIONS.

Assistant Surgeon J. C. Perry, commissioned as Passed Assistant Surgeon, April 19th, 1893.

Assistant Surgeon A. C. Smith, commissioned as Passed Assistant Surgeon, April 19th, 1893.

The World's Fair.

FINAL ARRANGEMENTS FOR THE SALE OF TICKETS VIA THE B. & O. R. R.

For the benefit of those desiring to attend the World's Fair the Baltimore & Ohio Railroad will sell Excursion tickets to Chicago and return, at all stations on its line, at low rates. Tickets will be on sale until November 1st, and will be valid for return journey until November 15th, 1893. They provide for a reduction of 20 per cent. below regular rates. These ticket will be valid only for continuous journey. Tickets at higher rates will be sold that will permit holders to stop over at Baltimore, Washington, or any other point, going and returning.

Besides the opportunity of visiting Washington, a privilege afforded by no other route, tourists via the Baltimore & Ohio Railroad will traverse the historic Potomac Valley, the theatre of the war between the States. At Cumberland they will be offered a choice of routes, via Pittsburgh, or across the Allegheny mountains, 3,000 feet above the level of the sea and via Deer Park and Oakland, the famous summer resorts. The scenery along the Baltimore & Ohio route is the most picturesque in America. Pullman accommodations may be reserved in advance of journey. For rates and information apply to nearest B. &. O. Ticket Agent, or Chas. O. Scull, General Passenger Agent, Baltimore, Md.

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ORIGINAL ARTICLES.

MARY A. DIXON-JONES, M.D., Brooklyn. N. Y.
Oophorectomy in Diseases of the Nervous System. . 797

COMMUNICATIONS.

P. GUNTERMAN, M.D.,
Chloroform Anæsthesia and its Administration. . 806

M. GRAHAM TULL, A.M., M.D., Philadelphia.
Report of a Remarkable Series of Thirty-three Cases of Diphtheria Treated by the Tartaric Acid and Corrosive Sublimate of Mercury Method. . . . 809

JOHN B. ROBERTS, A.M., M.D.
Points of Similarity Between us and Homœopathic Physicians. 813

SOCIETY REPORTS.
The Medico-Chirurgical Society of Louisville. . . 820

EDITORIAL
A Gratuitous Insult. 829

TRANSLATIONS 831

ABSTRACTS 832

THE LIBRARY TABLE. 834

CURRENT LITERATURE REVIEWED . . . 835

PERISCOPE
NEWS AND MISCELLANY 837
ARMY AND NAVY 838

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" **J. Mills Browne,** *Surgeon-General U. S. Navy;* **John B. Hamilton,** *Supervising Surgeon-General, Marine Hospital Service;* **Wm. A. Hammond, Nathan S. Lincoln,**	*WASHINGTON*
" **H. Byford, Chr. Fenger, R. Jackson, C. T. Parkes, E. Schmidt,**	*CHICAGO*
" **A. C. Bernays, W. F. Kier, H. H. Mudd,**	*ST. LOUIS*
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ORIGINAL ARTICLES.

OOPHORECTOMY IN DISEASES OF THE NERVOUS SYSTEM.

MARY A. DIXON-JONES, M. D., Brooklyn, N. Y.

I have read with much interest Dr. Allen McLane Hamilton's article on "The Abuse of Oöphorectomy in Diseases of the Nervous System." He says:[1] "In speaking, as I am about to, it is with a full appreciation of its value, which I believe is exceedingly limited, except where well-marked and previously recognized structural disease of the organs is determined."

I cordially agree with Dr. Hamilton that, in every case, the disease should be "well marked," and, I would still further emphasize the idea by adding that it should also be, as far as we can judge, *incurable, and manifestly doing positive injury to the system.*"

Previously recognized structural disease of the organs may be determined," and yet this not be sufficient to demand or warrant the removal of the ovaries; for structural changes may be considerable, and yet produced only by a slight inflammation and would not, therefore, justify extirpation. Even more profound changes of structure, resulting from more serious conditions will not, in all cases, render it necessary.

Dr. Hamilton says further of this operation: "Its value is exceedingly limited." I believe it is absolutely "limited," and should never take place for purely nervous conditions, but for absolute and incurable disease of the named organs, and maintain that, in no instance, for any nervous disease, should healthy ovaries be removed.

In 1882, Sir Spencer Wells said:[2] "Its introduction in mental and neurotic cases is only to be thought of after long trials of other tentative measures, and the deliberate sanction of experienced practitioners." In an article of mine published in the *Am. Jour. of Obstet.*, Feb., 1888, referring to the above, and quoting the following expressions from Sir Spencer Wells: "Removal of ovaries while in a state of functional activity," "Oöphorectomy, or removal of normal ovaries," I said: "I shudder at the thought of re-removing *healthy* ovaries, or even when the disease is problematical; I would not remove healthy or normal ovaries for dysmenorrhœa or any suffering in the regions of the ovaries; I would not remove them for epilepsy, nor for mental or neurotic disease, even if I had failed after long trials of tentative measures, and had the cordial, full and deliberate sanction of experienced practitions, *unless* I believed the *appendages* themselves *were diseased.*"

In an article, in the *N. Y. Med. Jour.*, May 10-17, 1890, again referring to the above, and quoting the following from Dr. T. A. Emmet:[3] "From the beginning, I have been uncompromising in my opposition to the removal of the ovaries for dysmenorrhœa and other nervous disorders, due to perverted or impaired nu-

1 N. Y *Med. Jour.*, Feb., 1893

2 *Am. Jour. Med. Science*, 1886, Vol. II., p. 463.

3 *Med. Record*, Dec. 28, 1889, p. 711

trition, and where the fault lies in the centres," I then add: "Thus it will be seen that the position which I assumed from the first, and published nearly two years before, is more conservative than Dr. Emmet's position. I make the 'uncompromising' sweep of excluding all cases from this operation, except where there is hopeless disease of the organs themselves; that is, I denounce the removal of the uterine appendages for any cause, neurotic condition, constitutional disturbance, or for any reason except for incurable disease. When thus diseased they are a continual injury to the system, and their removal is a lasting benefit. To remove healthy organs for any 'grave' condition of the general system should not be thought of, and cannot, under any circumstances, eventuate in any good; for the normal action and physiological function of healthy organs will always increase the life force, and assist in restoring the system, in whatever way diseased, to a state of health."

I have never conceived of any circumstances that would demand the removal of normal ovaries. I regard it as a most serious procedure to remove human ovaries, and it should not be done without sufficient reason any more than amputating a hand, arm, or leg. A woman is to be inconceivably pitied, who, from any cause, has to lose the organs, and yet, to many, it has been a blessing; it has been their salvation and the means of adding years to their lives. A man is to be inconceivably pitied who has tuberculous lungs or fatal nephritis, and would consider himself inconceivably happy if he thought it possible for him to live after the removal of the fatally diseased lungs or kidney, and especially if thereby his life could, for many years, be prolonged.

Another reason why the removal of the ovaries should, as much as possible, be avoided, and women urged to seek early to be cured of any ovarian trouble, is that continuous disease of the organs, not only interferes with health, but may render the person absolutely sterile. In my article on "Sterility in Woman,"[4] I gave a number of instances where special treatment had removed an incipient ovarian and tubal disease and with the best results. This, I believe, is really what was done in most of the cases, mentioned in the article as being treated for sterility; but I would especially refer to the two in the 5th paragraph, page 319. Perhaps few have had larger opportunities than I to read the innate longings of every true woman for children. I have heard the moan from the depths of the human heart. For more than twenty years my practice in the disease of woman has been largely to remove the causes of sterilty and, as I said in the above mentioned paper, "Planted deep in every true woman's heart is the love for children, and nothing is more beautiful than a large family of children; no greater happiness can come to a woman."

Dr. Hamilton further remarks in his article: "So far as as I know, oöphorectomy has never cured a case of well-established or even incipient organic disease, or has proved to be the least use except in functional disturbances that could have been cured, or at least helped by angencies of a far less dangerous nature." In this assertion I believe Dr. Hamilton would find many eminent surgeons and gynecologists who disagree with him. Battey says: "My cases of epilepsy have given me the most satisfactory results. The cures have been prompt and complete." He reports, in 1886, 13 cases of epilepsy cured by the operation. On another occasion he said nine out of ten of his cases of ovaro-epilepsy have been completely cured of their epileptic form of seizures.

Prof. A. Vanderveer[5], of Albany, gives several cases. One, 24 years old, had eleptiform seizures at 14. He operated for the removal of the uterine appendages, May, 27, 1886, and "four years after the operation she had yet no return of the convulsions." Prof. W. T. Howard says of a patient: "She would lie in a state of coma, writhing in pain for ten days together; she had taken her weight in bromides and chloral until they had no effect whatever." He removed the ovaries and tubes and said: "She recovered and was like a new being." Olshausen reports a severe case of hystero-epilepsy—"the troubles," he says, "were removed after castration."

Dr. Earnest Böhni[6], reports a patient,

4 Sterility in Woman—Causes, Treatment and Illustrative Cases. *Med. Rec.*, N. Y., Sept. 19, 1891.

5 *Tr. Med. Society*, N. Y., 1882, p. 182.

6 *Cor. B. Bl.*, Schweizer Artz Bas., 1886. XVI., p. 622.

25 years old. The epileptic fits were so severe that it required three persons to hold her, convulsions sometimes lasting three hours, and occurring many times a day. The left ovary was enlarged, inflamed and sensitive to the slightest touch. Dr. Böhni removed this and asserts that, from the day of operation, the patient had no spells. Dr. Reamy[7] reported a case of a young woman who had suffered from constant headache and epileptic attacks. She had been treated by various physicians without obtaining any relief. After the removal of the ovaries the headache ceased, the epileptic attacks did not re-appear, and the anxious vacant stare of the contenance entirely disappeared. Dr. A. Maurer, in Coblentz, reports the case of a young girl, whose menstruation appeared at seventeen, was irregular, accompanied by increasing pain in the abdomen, back and lower extremities; the general health became affected, the ovaries were sensitive to the touch. After a while the severe periodical pains became epileptic in character, patient at times unconscious, extremities rigid, body opisthotomous. To make the diagnosis more certain he had the patient chloroformed; the ovaries were found to be enlarged, and if either one was taken between the fingers, notwithstanding the deep narcosis, there were tetanic convulsions of the whole body. He concluded: "The cause of the sickness was the disease of the ovaries. He removed both organs, and reports a complete recovery of the patient."

I find a case reported by Jacob May, M. D.[8] "The patient, 31 years old, taken in her third pregnancy with epileptic seisures; they continued increasing in severity, and became so violent as to require the united strength of several persons to prevent her from injurying herself. The doctor recognized that there was tenderness in the region of tubes and ovaries, and consulted with Prof. T. G. Gaillard Thomas, of New York, who, after a thorough examination of the case wrote: 'In my opinion, Mrs. A. suffers from hystero-epilepsy, due to ovarian and tubal disease. You have done all for her which medicine can effect, I unhesitatingly recommend Tait's operation. The tubes and ovaries were removed. Sixteen months after the operation the patient wrote: 'I have had no fits and no symptoms of any. I am improving every day, and more able to do for my family than for years past.'" On May 21, 1888, Dr. May wrote: "Nearly four years have passed since this operation, and there is no return of epileptic seisures."

Dr. H. M. Boldt,[9] gives some most instructive cases. One patient, age 24, both ovaries were prolapsed and very sensitive; pressure on either brought on a feeling as though the patient would have a convulsion. Years of medicinal treatment and continuous local treatment had been of no service. The ovaries were removed. Gradually the convulsions diminished in severity and frequency, and now more than a year has elapsed since the last attack. Another case: Patient æt. 28 years; right tube and ovary much enlarged, prolapsed, bound down by perimetric adhesions and very sensitive, pressure on the ovary brought on hysterical convulsions. On February 12th, 1886, the right appendage was removed. After the operation the nervous symptoms disappeared, and since the patient has not had a convulsion.

Dr. Chas. Meigs,[10] reported a case of Hystero-epilepsy. "Patient had always enjoyed good health till after the birth of her child, six years previously. She was in bed nine weeks after her confinement; and six months after, she commenced having epileptiform seisures at her menstrual periods. They gradually became so violent that the family were about to place her in an insane asylum, when, Oct. 3, 1881, the ovaries and tubes were removed. The patient made a speedy recovery, and has not had one seisure since the day of operation. Donnell Hughes,[11] reports three cases, all had disease of the uterine appendages, these were removed; each patient recovered, and each one was afterward free from epileptic convulsions. Dr. J. G. Brooks reports a successful case of "Castration for Hystero-epilepsy." Dr. W. J. Asdale,[12] and Dr. Taber John-

7 Obst. Soc., of Cincinnati, June 20, 1887, *Am. Jour. Obset.*, April, 1888, pp. 434-436

8 *Vir. Med. Monthly*, Richmond, 1889, Vol. V., p. 174.

9 Removal of the Uterine appendages for Hystero-epilepsy, *Am. Gyn. Jour.*, June, 1892.

10 Phila. Obst. Soc., Jan. 6, 1887, *Am. Jour. Obst.*, Mar. 1887, p. 30.

11 *Med. Progress*, Louisville, Ky., 1891, p. 490.

12 *Pittsburg Med. Review*, Dec., 1886.

son,[13] report similar cases with like results. Dr. T. Nelson, Prof. of Clinical Gynecology, Rush Medical College, Chicago.[14] "Patient 25 years of age, married six years, no children. The epileptic fits were becoming more frequent, and were worse just before the menstrual period. The ovaries were tender, adherent and displaced." The operation was done on Nov. 20, 1886, with satisfactory results; and he said to his class: "If such a case presents itself to you, and the patient has been under skillful treatment for five or six years, as in this case, without any material benefit, it will become your duty to operate."

G. H. Balleray,[15] Patterson, New Jersey, says: "A patient, aged 31, was brought to his office, Oct., 1881, to ascertain if anything could be done to cure her epilepsy. Convulsions began ten years previously, and had recurred regularly at each menstrual period, increasing in severity till the mental faculties had become impaired. The patient had been under the care of several physicians, all of whom administered the bromides in large doses. Both ovaries were found to be enlarged, and tender on pressure. I told the mother of the patient that her daughter could not be cured by drugs, but that the removal of the ovaries might result in a cure. In 1882, the convulsions had recurred with increasing violence at each menstrual period, and the patient was now suffering with acute mania, eyes red and glaring. She had been in convulsions all the previous night. The convulsions were followed by profound coma, out of this she passed into a manical condition. The patient, as well as the relatives, were very anxious for an operation. April 27, 1882, both ovaries and tubes were removed. Three months after the operation she had a slight convulsion. She then went fourteen weeks without having a convulsion, then she went four months without an attack; and when I last heard from her, five months had elapsed without a convulsive seisure." Prof. Lawson Tait,[16] reports a case of Hystero-epilepsy. The wife of a physician, 33 years old, Aug., 1887, married eighteen years; first child born ten months afterwards. In 1874, she aborted on the third month followed by pelvic peritonitis on the right side, and she was unable to leave her bed for three months. One year after she aborted again, and on this occasion a similar inflammatory attack occurred on the left side. In the spring of 1885, she was attacked for the first time with a convulsion which lasted about a hour, and similar attacks were repeated for two months, twice in twenty-four hours, which were very violent, sometimes requiring five or six persons to hold her. She made frequent attempts at suicide. The husband wrote, Aug. 5th: "She was seized worse than ever, the convulsions lasting from three to four hours, followed by wild delirium. This continued for eight days. Ten days since she became worse, and the mania that followed was of a suicidal character. I am certain that nothing will be of service except removal of the uterine appendages, as those in the right side have been diseased for eleven years." Prof. Porro was to remove the appendages on Aug. 17th; he commenced his operation at 11 o'clock, and finished by abandoning it at 12.15. He says both tubes and ovaries were so densely adherent, that it was impossible to separate them from the mass of organized tissue in which they were imbedded.

Aug. 30th, all the symptoms, including the violent convulsions, had returned with, if possible, greater severity. Four violent convulsions occurred in thirty hours, and she became insane. Mr. Lawson Tait performed the operation on the 23rd; removed the appendages from both sides; operation lasted nine minutes and a quarter. The patient has had no trouble since; is bright, cheerful, and the expression of her face entirely changed.[17]

The history of cases clearly shows, that many instances of epilepsy, of a remarkably serious character, have been caused by disease of one or more pelvic organs. Could anything be more natural, than that removing the cause, they would eventuate in cure? When we consider the large supply of nerves to the ovaries, and their multiplied connection with all

13 *Vir. Med. Monthly*, Richmond, Jan., 1889, p. 261.

14 *Med. News*, May 3, 1890, Oophorectomy for hystero-epilepsy.

15 *Tr. of Med. Soc.*, New Jersey, Newark, 1886, pp. 77–79.

16 *Lancet*, London, 1887, p. 1213.

17 Dr. Chas. N. Dixon Jones, of New York, was, at that time, Mr. Lawson Tait's first assistant, and was present at this operation.

parts of the body, is it at all surprising that disease of these organs, especially in persons of a sensitive, impressible nervous system, should cause nervous disturbances, and possibly epilepsy? Is it any more improbable, than that epilepsy should be produced by slighter forms of irritation in other and distant parts of the body, as a tape worm in the alimentary canal, a tight prepuce; or, as J. Althamus[18] cites, a case in which "revaccination, in a healthy youth of 19, caused attacks of true epilepsy." Prof. Henry Hartshorn has said that, "losing a meal will, in the epileptic, cause convulsions." We have innumerable instances given where lack of development or inefficiency of the generative organs has caused acene. Dr. Edebohls showed me a case in his ward at St. Francis' Hospital, where repeatedly, month after month, at each menstruation, there was a marked and circumscribed skin eruption on the right side of the face and neck. We are also assured, by well authenticated instances, that reflex irritation from diseased ovaries has caused changes in the bone, or osteo-malacia, and equally well attested proofs of cures of this disease by removal of the effending organs.

Felding says: "Osteo-malacia is a reflex tropho-neurosis of the bones dependent upon ovarian activity;" and Thorn,[19] gives a case of a patient who had severe pains in the pelvic bones, with marked deformity, being unable to walk, and showing progressive emaciation and œdema. The diseased uterine annexæ were removed, after which the patient improved rapidly, the pains in the bones disappeared; she was soon able to walk, and a year after the operation, was perfectly well. Hoffmeier[20] reports the case of "a patient who suffered great pain in the bones, and increasing difficulty in walking, and finally was unable to do so without assistance." He performed "castration for osteo-malacia," after which the patient was well, had no further difficulty or pain in walking. F. Winckel, of Munich, and Prof. Schauta, of Prague, report similar cases with equally good results.

Ovulation is so important a function, that it is intended to take hold of the whole system, to embrace the whole being, for it is to perpetuate the race, and to give the best characteristics, mental and physical, of the individual. When this function is performed by diseased organs, will not the whole system, in a measure sympathize, and may not the nervous system and the mental conditions also to the same extent be affected? I have seen a number of cases where disease of the ovaries, not only produced local pains, but evidently caused the mental disturbances. Thomas[21] said: "Not a few women are always a little insane during the menstrual period." This can be said only of sick women, or those who have these organs diseased. Women with a healthy genital organization go through the function of menstruation as naturally, and normally, and painlessly, as the digestion of food, by a vigorous stomach.

In an article,[22] published Feb., 1888, I gave a cut, from my microscopical researches in diseased ovaries, representing "a varicose enlargement of a non-medullated nerve fibre packed in dense fibrous connective tissue," and, as I then said: "This is the first time, at least to my knowledge, that nerve fibres could be traced in inflamed ovarian tissue with such clearness as this specimen exhibits. Nerve fibres of this kind, so placed, will cause pains aggravated at every menstrual period; or, if in connection with the vaso-motor system, may cause epileptic fits." Such imprisonment and pressure of nerve fibres must frequently take place in ovaries where there are gyroma, these hard, dense, firm fibrous formations. I have,[23] in some instances, counted as many as five of them in one section of the ovary. I believe that when we have made more thorough pathological research, most of the cases of severe local pain accompanied by various neuroses, will be found in patients who have gyroma. I said in in another article,[24] "Out of a number of cases of epilepsy or hystero-epilepsy, I have, in three instances, performed oöphorectomy, not, however, for the epilepsy, but because I considered that the

18 *Archives de Neurologie*, quoted in Annals of Gynecology, Dec., 1891, p. 189.

19 *Centralblatt fur Gynakologie*, 1891, No. 41.

20 *Centralblatt f. Gynak.* Leipz. 1891, 15, p. 225.

21 Med. and Surg. Reporter, Phila., Sept. 6, 1879, p. 206.

22 *Am. Jour. Obst.*, Feb. 1888, p. 1154.

23 Represented in *N. Y. Med. Jour.*, May 10 and 17, 1890.

24 Diagnosis and some of the Clinical Aspects of Gyroma and Endothelioma of the Ovary." *Buffalo Med. and Sur. Jour.*, Nov., 1892.

ovaries or uterine appendages were past cure, and their removal would benefit the patient, and it is remarkable that in each of these three cases of epilepsy, the ovaries were found to contain large gyromatous formations." When I visited La Saltpètrière, in Paris, I repeatedly walked through those immense old wards, with their hundreds of sick women, and had an opportunity of studying a number of those cases in connection with their history, and I now query, whether gyroma in the ovaries of these sick women would not account for many of their bodily sufferings, and the abnormal functions of the brain and nervous system. Esquimol and Moul have estimated "that derangement of menstruation form the source of one-sixth of the cases of insanity due to physical causes."

In Nov., 1882, I was called to see a patient, 27 years of age, subject to most terrific hystero-epileptic spasms. She was confined to her bed most of the time, nervous, sleepless, restless, pale, feeble and emaciated; had been twice married and no children. She had just passed through her supposed menstrual period, and had suffered all the night previous with agonizing pains, accompanied by almost continuous spasm and repeated convulsions. The uterus was found in extreme retroversion, and bound firmly down by inflammatory adhesions; on each side the uterine appendages were wrapped in an inflammatory mass, size of an ordinary orange, extremely tender and adherent to surrounding structures.

These conditions were, without doubt, the cause of the ill health of the patient, and of her serious nervous symptoms. Soon after her first marriage, at the age of 18, she had an attack of supposed "inflammation of the bowels," but which no doubt was gonorrheal salpingitis. Her health continued to grow worse, and soon after she commenced having epileptic seisures. These convulsions occurred first at the menstrual periods, and she often had as many as ten or fifteen during the night. She had been attended by many physicians, who in turn gave her bromides, electricity and Charcot's method of pressure, etc. I treated her continuously for months, in hopes of reducing somewhat the soreness and inflammation, but could see no essential improvement. What was to be done with these masses? Evidently the patient must die if she was not in some way relieved. Her multitude of doctors had all faithfully tried, and were powerless to help. These diseased masses could not be cured; they were of no service, and only a source of suffering—suffering so profound and incessant as to throw the whole body in violent convulsions and drive the poor woman to the verge of dispair and insanity. What else but to remove them? If Tait and Battey had not told us of this means of help, I should then have discovered it. Indeed without knowing what they had done, the necessity of such an operation was forced upon my mind. I even mentioned it to the patient. This was in Dec., 1882. Eagerly she seized the idea at once and repeatedly urged that it should be done, and even grew angry that I delayed. Said, "She wanted the operation if she died under it." So fearful were her convulsions that her excellent husband once said: "He would rather she would never come out of ether than be as she had been."

I still hesitated and delayed. In April, I requested Prof. B. F. Dawson, of New York, to see the patient. After a thorough examination he gave it as his opinion that the operation should be done, as soon as she could be made ready, that it was her only hope, and if not done, she could look forward only to a short while of miserable existence, and probably end her life in the insane asylum.

The 14th of May was fixed for the operation. The principal part was performed by Dr. Dawson. Dr. F. W. Rockwell administered the ether. Dr. J. H. H. Burge and Dr. C. N. D. Jones assisted. Every precaution was taken as to perfect antisepsis. On May 15, 1883, Dr. Dawson[25] presented the specimen to the N. Y. Obstetrical Society, mentioning that the "left Fallopian tube was distended to the size of an egg, and that he found the adhesion firmer than in any case on which he had operated, that it was with the greatest difficulty that he was able to remove the ovary, with its tube, and the right tube and ovary were borne down even more firmly than the left." These he did not succeed in removing. The patient succumbed to septicæmia on the 7th day. In my report

25 Amer. Jour. Obstet., Nov. 1883, p. 1192.

of this case to the Alumnae Association of the Woman's Medical College of Pennsylvania, subsequently published in the *Am. Jour. of Obst.*, I said,

"1st. This operation should have been performed on this patient five or more years before it was.

2nd. There was no other way to relieve her but by the operation

3rd. Without it she was in constant danger.

4th. The operation to her was not as much suffering, nor as much of a shock, or as great a trial as was a week of her usual suffering."[26]

A few weeks after the publication of the above-mentioned case in the *Journal of Ostetrics*, I received a letter from Mr. Lawson Tait, Birmingham, Eng., dated November 23, 1884, in which occurs the following sentence: "I agree with your conclusions concerning it absolutely. That poor girl's life would have been saved had the operation been done months or perhaps years before. The whole gist of modern abdominal surgery lies in an earnest aud continuous plea for early interference. There can be no doubt that the only regret about all such cases is that they are allowed to go on so long without operation."

Even if the epilepsy results from deep lesion of the nervous system, yet a disease of the uterine appendages will aggravate the conditions and be a source of increased suffering, and there is no reason why a person should not be relieved as much as possible. On May 30, 1888, a patient, M. G., was brought by her mother to see me at Throop Avenue Dispensary. She was an epileptic; the epilepsy following a severe attack of pelvic inflammation, the patient complained especially of the distress in the pelvis; said the suffered so much and so constantly that her life was no good. Examinations showed that she had had repeated attacks of peritonitis, one ovary was enlarged into a blood cyst, size of an orange; there was salpingitis of both tubes; and the appendages, on each side, were bound in by inflammatory adhesions. I informed the mother and daughter that these organs could not be cured; that, in the present state, they were not only a cause of increased suffering, but attended by some danger. The mother and daughter were both anxious that an operation should be performed. They called again and, in a few days, the mother brought the daughter to the hospital, 725 Green Ave. It was deemed advisable to perform the operation as soon as possible; it took place on Dec. 13, 1888.

The tumor was found to be a blood cyst, bound firmly by pseudo-membranous adhesions to the walls of the pelvis; so also were the other ovary and the tubes, and all gave evidence of long existing disease. The patient made an excellent recovery and was able to be up in two weeks, free from pain, and every day seemed to grow stronger and better, and did not at the time have a return of the epilepsy. The mother called frequently at the hospital to see her daughter, always expressed herself more than pleased.

As this operation seemed to be of such essential benefit I passed the patient over to the department of general surgery for the depressed bone of the skull to be raised, as so many physicians whom she had consulted, had considered this the cause of the epilepsy. This operation was successfully performed Jan. 25, 1889, and from it the patient made an excellent recovery, but, after it, the attacks of epilepsy seemed to recur, but they again gradually commenced to diminish in number. Certainly the patient was cured of her pelvic trouble, and to that extent her general system was benefited.

Both the last-named patients had chronic salpingitis, and the ovaries of each, from microscopical investigation, were found to contain large gyromatous formations. Those in the first patient were in a state of intense inflammation.

When the ovaries are thus diseased their removal does good, but when the organs are normal the operation can result in no benefit to the individual. I am so convinced of this that when I find a case, where the removal has been an apparent failure, I at once conclude that the organs were not diseased. Schrœder stated that he had operated 12 times for the removal of healthy ovaries for neurosis; three times with good results; one patient was well 8½, another 7, another 3 years after removal. He says emphatically of one, a case of severe hystero-epilepsy, "the

26 The day before the operation I saw her in agonizing pain, and when afterwards I saw the distended Fallopian tube and its thin walls, I marveled that it had not then burst and, probably, with fatal results.

young girl was entirely cured." In these three cases, that were apparently so benefitted, I venture to say that the ovaries were pathological though the report might say, "they were normal," or "very little changed." We cannot always tell by ocular appearance whether an ovary is diseased or not. Some of the most seriously diseased ovaries I have ever examined and which were removed because the woman had untold suffering—in some instances the sufferings were so severe that their lives were almost compromised—yet, from external or naked eye, appearances of the organs there were no special indication of disease. One such ovary I found, by microscopical examination, to be infiltrated with cancer; another had endothelioma so far advanced that it gave the patient the appearance of a far-advanced stage of phthisis. She suffered such distress that she could not work, and the organs were so sensitive that the marital relations were unendurable. Though at the time of the operation the ovaries did not show such manifest appearance of disease; still I *knew there was as much necessity for their removal as if they had been tubes full of pus.* I presented microscopical slides of a number of ovaries, so affected to the New York Pathological Society. I gave a specimen of one to Prof. Prudden, then president of the society, and sent a microscopical slide of the same ovary to Waldeyer, of Berlin. Both of these eminent pathologists, from a microscopical examination, returned a written diagnosis of "carcinoma," showing that in the estimation of these two distinguished authorities, it was a most serious form of degeneration.

In many instances the most experienced cannot tell by naked-eye appearances whether an ovary, even when freshly removed, is diseased or not; yet on one occasion I saw a few physicians, not experts, attempt to diagnose the condition of ovaries that had soaked for four years, part of the time in chromic acid solution, and part of the time in alcohol; and decide whether the surgeon was justified in removing them! "O tempore! O mores!" Many of these specimens were cases of pyosalpinx, some of endothelioma and chronic oöphoritis; one, where the right ovary and tube formed part of the wall of an abscess that extended into the adjoining pelvic aponeurosis; another where a pelvic abscess had most detroyed one of the Fallopian tubes; and another was the cirrhosed ovary of an old woman who had had removed an interligamentous tumor, 9 to 12 inches diameter. They might at least have recognized some disease from the remnants of adhesion.

Leaving this digression, I was insisting that it should be an established rule that ovaries should not be removed for abnormal mental conditions or any nervous disorder, unless there is a well recognized disease of the organs. It is not the abolition of the function that does good, nor because this function itself does harm, but it is, the ineffectual effort made to perform it by diseased organs. We have the report, that at the Samaritan Hospital, for Women and Children, Belfast, Ireland, [27] healthy ovaries and tubes were removed for masturbation and insanity, with no especially good results. This, of course, we might expect if the organs were normal. Dr. Wm. Lezynsky [28] reports a case of oophorectomy that took place at the City Lunatic Asylum, Feb. 23, 1880. "The patient had then been, for a period, extending beyond three months, in condition of catilepsy; receiving artificial alimentation, either by aid of stomach tube or enemata. On the 14th of February, at the suggestion of Dr. Allen McLane Hamilton, the inhalation of nitrous oxide was resorted to.

This patient had had no menstruation since her admission into the asylum, and the history of the case gave no indication of disease in the pelvis or of the pelvic organs; and there could be no reason for the removal of the ovaries, as according to the examination subsequently made by Prof. Wm. H. Welch, they were found normal. The patient died of septicæmia three days and twenty-two hours after the operation."

Prof. Allen McLane, in his article above quoted [29] further says: "I do not think this operation permissable in any case of insanity."

This is certainly true when said of healthy organs. No such operation should, under any circumstances, take place in case of insanity, unless the person has evident disease of the organs or tubes, and

27. *Tr. Acad. Med., Ire.*, Dublin, 1887, p. 208.

28. *N. Y. Med. Jour.*, June, 1887, p. 707-9

29. *N. Y. Med. Jor.*, Feb., 1893.

this disease is doing positive damage to the system. Under those circumstances, I do not see why a woman should not be relieved as much as possible of suffering, whether she be insane or not. Eminent surgeons and gynecologists tell us that many insane women, who have been operated on in this way, have been cured of their insanity. "Of so called ovarian maniacs," Prof. Wm. Goodell, of Philadelphia, has reported "five cases, with four cures by removal of the ovaries." On this occasion, he said: "After the lapse of many years, my cases of oophorectomy for insanity, for hystero-epilepsy, for hysteromania showed positive and permanent benefit, adding: [30] "Should I meet with a case of insanity limited to the catemenial periods, I should not hesitate to remove the ovaries." He says further: [31] "What insane asylum does not hold incurable women, whose mental infirmities seem to depend upon the act of ovulation; or, at least, to be greatly exasperated by its recurrence. We have hitherto stood by with folded hands, dooming the sufferer to helpless invalidism, or to an untimely end. Fortunately, there is a remedy that promises much—one first proposed by Robert Beatty." Prof. T. G. Thomas says: "In one of his cases, the insanity was confined to the period of ovulation and, after the removal of the uterine appendages, the menstrual insanity was entirely relieved." Dr. Stansbury Sutton says of one of his cases: "After the removal of the diseased appendages, the patient's insanity soon disappeared, and she remained free from mental disease and nervousness." Dr. Noggerath [32] gives a case of "the disappearance of insanity immediately after the removal of an ovarian cyst." He emphasizes: "Immediately after the removal of the cyst, the patient had her reason restored."

Ed. Cotterell [33] tells of a patient, 37 years of age, who had long suffered from melancholia, and was always much worse during the catamenial periods. Immediately after the birth of her youngest and fifth child, she became quite insane, and more than once attempted to commit suicide. Menstruation very scanty, and attended with a good deal of pain. March, 1887, he removed the uterine appendages, and now nearly three years have passed, she has had no return of her old symptoms. According to his statement, both ovaries and tubes were affected. He says, "I know by experience that genuine menstrual epilepsy cannot be cured by drugs, and therefore I should have no hesitation in recommending the removal of the ovaries and tubes in any case in which medication has had a fair trial, without producing any beneficial result."

In July, 1887, I was called at the request of a physician in Bridgeport, Ct., to see a young woman in Ansonia, who had a long time been under treatment.[34] She was 27 years old, lying helpless in bed, a mental and physical wreck; married seven years, had no children, and was as incapable of being a wife as a mother. The uterus was found to be retroverted, dragged down by enlarged and diseased ovaries. She entered the Woman's Hospital of Brooklyn, July 12, 1887, brought to it in her husband's arms. She all the time had hallucinations, some of which could not be dispelled, often threatening to jump from the window, etc. The diseased ovary and enlarged tubes were extremely sensitive; and after some weeks' treatment, it was advised that they be removed. Dr. A. M. Jacobus was present and assisted at the operation. The patient gradually regained her mental and physical health, and when last heard from was well, and able to care for her household. A microscopical examination showed also that the patient had pyosalpinx, chronic oophoritis, and the ovaries contained gyromatous growths.

E. D. Bondurant,[35] M. M., admitted to the Ala. Insane Hospital, Aug. 23, 1871; 31 years of age, mother of four children, youngest child born Dec., 1870. Seven months after, she menstruated and immediately thereafter developed symptoms of mental derangement; the periods of comparative sanity were shorter. The evident close relations existing between the functions of ovulation and the mental symptoms led to the opinion, held by Dr. Bryce, and concurred in by Dr. J. Marion

30. *Boston Med. & S. Jour.*, June 19, 1879, p. 845.

31. *Tr. of Med. Soc., of Penn.*, 1878-9, p. 598-600.

32. *Trans. Obst. Soc., Am. Jour. of Obst.*, June, 1889.

33. *The Removal of the Uterine Appendages for the Cure of Ovarian Insanity."—Lancet*, London, 1891, 14, p. 365.

34 Case reported in *The Pittsburgh Med. Rev.*, Oct. 1889.

35 Cases of oophorectomy for insanity. *Am. Jour. of Insanity*, Utica, N. Y., 1885–6, XLII, p. 342.

Sims and Dr. Robert Beatty, to whom a statement of her case was submitted. The history further states: "After the removal of the ovaries, the patient began slowly to improve, mental symptoms gradually subsiding, and is able to attend to her household duties." Lawson Tait[36] gives notes on oophorectomy in ten cases for menstrual epilepsy and mania. In the five there was a complete arrest of the epilepsy and the mania was slowly disappearing. In the second, there was great relief. He gives also the case of a girl, seven years of age, who had suffered all her menstrual life with severe menstrual epilepsy. Lately this had assumed the additional character of acute mania at the periods. The patient was an inmate of the Binghampton Borough Asylum. She was with the consent of the commissioners placed under the care of Mr. Lawson Tait. Her ovaries were removed. The effect of the operation was an immediate and most marked improvement in her physical health, an entire absence of the mania, and a diminution of the fits from fifteen a month to three, with marked amelioration of the severity.

Similar cases have lately been reported as occurring at the Insane Asylum, at Norristown, Pa. One patient, in whom the first attacks of mania followed the birth of her child, 29 years previously, probably some sepsis then introduced. The attacks were always preceded by periods of severe pain in the right or left ovary. The ovaries and tubes were removed July 2, 1892, and in a little more than four weeks the patient went home, completely restored in body and mind. Another, where "the internal trouble dated from an abortion produced five years previously; the ovaries and tubes removed the same date as above, and on the 17th of September, 1892, the patient went home well, physically and mentally." Other cases, equally interesting, are given, all showing that pelvic disease may in some, so disturb the nervous system as to cause insanity, and that removing the diseased organs will relieve the physical sufferings of the patients, and, in many instances, restore them to mental health. Is there any reason why they should not be helped? I plead, in the interests of humanity, for these poor overburdened women.

COMMUNICATIONS.

CHLOROFORM ANÆSTHESIA AND ITS ADMINISTRATION.*

P. GUNTERMAN, M. D.

Means to subdue pain in operation have been used since the earliest days of medicine and surgery. Dioscoridis, 50 A. D., used a decoction of mandragora; others used the different kinds of narcotics; others used spirituous liquors and made their patients drunk. In 1844 Dr. Horace Wells, of Hartford, Conn., pulled a tooth for a patient under the influence of nitrous oxide, long before discovered by Sir Humprey Davy; in 1846, Dr. Morton, of Boston, did the same but used sulphuric ether as the anæsthetic; in the same year Dr. Warren, also of Boston, did the first surgical operation on a patient under the influence of ether. Sir. Jas. Simpson, in 1847, was the first to use chloroform. His brilliant success in this first and thousands of other cases soon established chloroform as the almost universal anæsthetic. It was by preference, used the world over except in the Eastern States of U. S. A. To this anæsthetic agent, "chloroform," if you will bear with me, I will call your attention to to-night.

In years gone by, it was necessary for the anæsthetist to make the test for purity of the article he was to use. His chloroform must be pure, i. e., it must be colorless; it must leave no odor or stain after evaporation; it must not discolor on being shaken with sulphhric acid and water; must not give chloride precipitation

36 *British Med. Jour.*, July 10, 1880.

* Read before Clinical Society, Louisville, April 4, 1893.

with nitrate of silver. To-day these tests are no longer necessary. All chemists can easily furnish the pure article and the only possible adulterant, alcohol, is absolutely harmless. I may be pardoned for making this short and imperfect resume of the history of anæsthetics in general and chloroform in particular, and we will now proceed with the main question at issue. In order to be more precise and permit an easy and quick survey, I will bring the subject under these four leading questions, viz:

1st. Who shall give chloroform?

2nd. To whom may and shall it be given?

3rd. How must it be given?

4th. How much is to be given and how does it effect the patient?

The first question, who shall give chloroform? In this age of specialties the supposition is near that I would unqualifiedly suggest a specialist, a man who makes it his business to give anæsthetics and gives this business his undivided attention. Not so. I maintain that every qualified physician ought to make it his business to be ready for the occasion and to be well versed in the details of anæsthetisation. No man who has not mastered these details, has the moral right to handle an agent at once so great and powerful for good or evil. One ought to think twice before he takes the balance of life of a fellow creature in hand, a scale so delicately poised, that the quiver of a muscle may sink the lethal side. Nor is this all. Every death that happens during the administration of chloroform is promptly ascribed to it. The clamoring mob abuses the unhappy administrator and, denouncing the agent as dangerous, robs many a poor sufferer of this great boon to humanity.

Rarely ought a doctor now-a-days be placed in a position to be anæsthetist and operator at the same time; yet all of us may be placed in this very unpleasant predicament. In such a case only the most urgent and absolute necessity can be at all excuse. The anæsthetist ought to give all his attention to his charge, and not for one moment ought he to attend to the operation, if he does he may find to his sorrow that the patient needs his attention no longer.

The next question is: To whom may and shall chloroform be given? Before we give chloroform to any one, he should be properly prepared, that is to say, his physical condition ought to be made as favorable for the taking of this powerful agent as can cenveniently be done. The person to be chloroformed ought not to have a full stomach, i. e., he ought not to have eaten solid food for at least six hours before he is to take chloroform. Nor is it well that the patient, perhaps nervous, excited or exhausted from illness and suffering becomes weak from prolonged fasting. It is, therefore, advisable to give a cup of broth or some fluid food a couple of hours preceding the administration of chloroform. Sometimes it is well to give stimulants.

The individuality of the patient is not so material. Chloroform may be given with impunity to the baby a few days old and to the centenerian. Babies and young children bear it remarkably well. The intermittent pulse is no contraindication.

Bright's disease, valvular disturbances of the heart, even fatty degeneration of that organ form no absolute barrier. However, it is well to inquire into all these possible conditions and, when present, should put us on our guard, make us all the more cautious and attentive. After the patient has fairly recovered from the influence of chloroform, it may be well to give some stimulant, sometimes a little morphine hypodermatically. This induces a few hours rest or sleep from which there is usually a refreshed awakening.

The question, how shall we give chloroform is one of vast importance. The first thing to decide is, by what means the agent is to be administered. Many an apparatus has been invented, Clover's, Snow's, etc., but none of them have stood the test of practical experience. If they were perfect dosimeters they were impracticable and unweildy, if they were manageable machines they had no intrinsic value save the maker's price, and did not better serve the purpose than the napkin and towels of Sir Jas. Simpson. Only in a regular operating room is a complicated apparatus practicable. Nothing is handier and better than a cone made of a napkin covered by paper. Such a cone answers every purpose. With it we can regulate the dose, the proper admixture of air and reduce waste by evaporation to a minimum.

Stand behind the patient at the head, notice the condition of countenance and pulse and place your finger, for convenience on the temporal artery. Encourage, reassure, cheer your patient and go to work. Pour in your cone about a drahm of chloroform, bring it gradually to the patient's face and let him breathe from the cone with a large allowance of air. Approach gradually and as soon as the sensibility of the air passages is overcome, as evinced by the subsidence of coughing or swallowing, give chloroform freely almost to the exclusion of air. Continue in this manner until your patient breathes easily and the eyelids no longer wink when touched. Now the patient is ready for most all operations. To bring him into this state takes from two to six minutes.

Your patients are your only care. Keep the finger on the pulse and watch with eye and ear the state of respiration. Be ready to state instantly rate and quality of pulse. If the patient's manner becomes excited withdraw the chloroform, if his countenance becomes livid give sparingly and much diluted, since often rapid and deep inspiration follow this state and enhance the danger by adding rapid anæsthesia to asphyxia. We must bear in mind the accumulative tendency of chloroform. Desist from giving chloroform when patient vomits, at least, if not sure that his stomach is empty and free from solid food. Be certain that your patient breathes and air enters into the lungs, diaphragmatic movements may deceive you. As soon as you hear larnygeal stertor stop your chloroform instanter.

The nature of the operation must determine how far your patient is to be anæsthetized. Watch unremittingly the sensibility of the conjunctiva and the condition of the pupil, whether or not it responds to light. If the pupil does not respond at all be extremely watchful and be ready to give timely warning, but be also careful to give no false alarm. In operations on the genito-urinary apparatus and on the rectum we find in the condition of the pupil the best indication whether the patient is sufficiently narcotized, he must be profoundly under the influence of chloroform. In case your patient becomes weak and faints as shown by pallor, profuse perspiration, and yawning leave off chloroform, and put him in the hyper recumbent posture with his head lower than his hips and order some stimulants. Quickly withdraw the chloroform when you perceive laryngeal stertor, pull the chin forward, upward and with it the head backward. This maneuvre removes (or may remove) the obstruction in the larynx and raises the ribs and sternum, in fact, is an easy and gentle form of artificial respiration. When this method does not succeed turn the patient on his side and institute artificial respiration after Marshall Hall or Silvester. It may become necessary to pull out the tongue which has fallen back and over the epiglottis. This ought to be done with a pair of sharp forceps, using a deal of force, to not say violence, in order to excite reflex action.

In extremely dangerous or disastrous cases quite a number of means for resuscitation are to be used to avert the fatal issue, but of these later on.

The last of our questions—how much is to be given and how does it effect the patient, remains to be answered. The quantity to be used in a given case depends on the nature of the operation and the probable time it takes to do it, and much more and perhaps wholly on the nature, temperament and habits of the individual. Nervous people, hysterical women and those addicted to the excessive use of liquor require a larger amount of chloroform than those who are differently or normally constituted. Children whilst they bear it well, require a great deal. I have seen patients thoroughly anæsthetized for two hours using only one ounce of chloroform whilst others in that length of time took as much as ten to twelve ounces. No two people, however, are affected alike. A person before an operation, let it be ever so trivial, is naturally somewhat nervous, shows signs of discomfort. Some are excited, pucker their mouths, pinch their eyes, screw and twist in all sorts of manner.

The first effect of anæsthesia is loss of this nervousness and restraint. The eyes are generally opened, the patient looks around and talks, often quite rationally, about the operation, etc. The conversation gradually becomes incoherent; often boisterous; some laugh and sing; some pray and curse. Now some muscular movements may be observed followed by a struggle requiring forcible restraint.

This is followed by a state of muscular rigidity which subsides gradually or abruptly. There is a little muttering succeeded by a drunken sleep with complete relaxation of all the voluntary muscles and abolition of sensibility. This is complete anæsthesia. Absence of sensibility in the conjunctiva and insensibility of the pupil to light give accurate information as to the true condition of the patient. Sometimes, more in children than in adults, the sphincters relax and the contents of the bowels and bladder are voided involuntarily. Such a state of affairs indicate some danger and solicit an extra degree of watchfulness lest the heart and respiratory muscles become involved in the same way.

Under the influence of chloroform the pulse becomes first accelerated, it gradually gets less frequent and finally resumes the normal tempo. It may become slow and weak as the operation progresses. The condition of the pulse may be greatly influenced by loss of blood during surgical procedure.

Pari passu with the pulse goes respiration. Respiration, too, first becomes quickened, gradually returns to normal (even, full and deep) and then may become superficial and shallow. As hinted before, movements of the chest are no assurance that respiration is properly going on, of which fact we can easily convince ourselves by listening, do not always trust to the eye alone.

You recollect the laryngeal stertor spoken of. There is another kind of stertor, the palatal stertor. Palatal stertor is no more nor less than ordinary snoring familiar to all. It is nearly always the warning signal that the patient is chloroformed enough. It is no sign of danger but marks the border line of safety. The laryngeal stertor with which we all have become acquainted in other conditions than those produced by anæsthesia is of the greatest moment. It is presumably, perhaps positively, demonstrated the result of closure of the larynx by paralysis of the epiglottis and a falling of the relaxed arytenoid folds on the rima glottis, and possibly a relaxed condition of the vocal cords. If this condition persist death from asphyxia is the inevitable result.

Death from chloroform either comes gradually or suddenly. Whatever may be the causes and how to counteract them we will not now discuss and reserve for some future day as a continuation.

Thanking you for your kind and patient attention, I cannot help being reminded of the Yankee's beaver, "he had to." Possibly you listened because you had to.

REPORT OF A REMARKABLE SERIES OF THIRTY-THREE CASES OF DIPHTHERIA TREATED BY THE TARTARIC ACID AND CORROSIVE SUBLIMATE OF MERCURY METHOD.*

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During the summer of 1889 my attention was attracted to an editorial in the *Medical News* which gave a synopsis of an article that had appeared a short time previously by Dr. Rennert, of Frankford-on the Main.

The substance of the article was to the effect that Rennert, while passing through an epidemic of diphtheria of great malignancy, and in which he had lost a great many cases, recollected that Laplace had but recently proved by direct experiment that corrosive sublimate in solution, slightly acidulated with tartaric acid was, by far, the most efficient of any of the germicides to be found, as applied to the bacteria of diphtheria.

Whereupon Rennert immediately changed his treatment. In addition to the conventional methods he had the throat thoroughly swabbed every six hours with a 1:500 tartaric acid corrosive sublimate solution, making sometimes four or five applications at one sitting. After instituting this procedure he did not lose a

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patient, although the epidemic had not apparently begun to decrease in virulence.

I was at this time using as a disinfectant in obstetric work the so-called tartaric sublimate tablets of Mulford & Co., of Philadelphia, consisting of 3.85 grains of hydrarg. bichloride to 19.25 grains of tartaric acid. The addition of one of these tablets to four ounces of water makes a 1:500 solution. I, therefore, resolved to adopt Rennert's plan in future cases of diphtheria, as the rationalé of the method appealed very strongly to me.

It so happened that the following autumn I had from forty to fifty cases, and my experience fully corroborated the results of Dr. Rennert. I lost no cases treated by this method, although three children who had contracted the disease from my patients died of it. Two of these I saw after they had been ill a number of days, but they were then almost in articulo mortis. The third was a case of my own which did so well under this treatment, that the parents against my advice, persisted in their previously-formed intention of moving to another part of the city. The great distance debarred me from continuing in the case, and I subsequently learned of its death.

After this my cases were so few and scattered that, although the method proved eminently satisfactory, I kept no record of them.

During the autumn and winter of 1892, the following very interesting and, I trust, instructive series came under my observation at the Baptist Orphanage, of Philadelphia.

Late in the preceding winter two cases of diphtheria, in half grown children, appeared in a farm house directly opposite and distant about one hundred yards from the Orphanage. The disease presented a very malignant aspect, and, notwithstanding the faithful care of a competent brother practitioner, both children died after an illness of a week or ten days. A number of other cases appeared in the village at this time, one of which I happen to know resulted fatally.

The following August one of the boys at the Orphanage, a lad of sixteen years of age, who had been assisting the gardener spread manure that had been obtained from the farm where the children had died the preceding winter, was suddenly taken ill with fever, vomiting, and slight sore throat. My first visit being made at dusk, I fancied the case one of beginning scarlatina, of which we had had a few cases the preceding spring; but upon my visit the following morning the diagnosis of diphtheria was apparent, and I lost no time in having him transferred to the Municipal Hospital, dreading the entrance of the disease among so many children.

Unfortunately, we were too late, and in the next few days nine of the boys from the same cottage developed well-marked cases and were at once isolated in a separate building which had been converted into a temporary infirmary. A trained nurse was obtained and the child placed under treatment at once. As a routine measure, each child was given the following tablet-triturate: hydrarg. chlor. mit., gr. one-fifth; sodii bicarb., gr. j; ipecac, gr. one-tenth; every half hour until free movements of the bowel ensued, and after that they were continued every two hours. The following mixture modified to suit the varying ages, was also employed: ℞. —Quininæ sulph., potas. chlorat., potas. citrat., syr. ferri chlor. (P. D. & Co.), syr. yerba santa.—M. et Sig., one drachm every two hours.

The nourishment consisted of liq. peptones (S. & J.) and milk at the commencement of the cases, rapidly followed by a full diet as the patient convalesced. In addition to this the nurse was instructed to apply every three hours by means of a cotton swab, a 1:500 solution of the tartaric acid corrosive sublimate tablet, made by dissolving one of Mulford's tablets in a gill of water.

The results were immediate and remarkable, the temperature falling, the pulse becoming normal, and the aspect of the child undergoing an astonishing change. The course of the membrane across the fauces was checked, and in each case came away in about forty-eight hours. All of these children were practically well in two days while the first case, which was transferred to the Municipal Hospital, was quite seriously ill for some time, and was not discharged for over six weeks.

The effect of this unusual success in the first nine cases was, in some respects, followed by unpleasant results, though of great value to this paper, furnishing, as it

does, complete check experiments upon my other cases.

A feeling of skepticism was developed in the minds of the attendants, and even the nurse was tainted by the prevailing feeling. So that, after the children first affected were about ready to return to their cottages, being allowed to play on the veranda on pleasant days, the strict quarantine which I had endeavored to establish was completely relaxed, and visits of more or less ceremony were exchanged between the nurse and the matrons of the other cottages.

I had promised to return the children to their own building on Wednesday, but on the Friday preceding five of the children in the so-called children's cottages were taken ill with fever, vomiting, coated tongues, etc., not, however, complaining of their throats.

The matron of their cottage, who was a law unto herself, said: "The doctor was mistaken in thinking that the children who were sick had had diphtheria and, that she would not allow her little ones to be taken to the infirmary, but would show him that she could treat them as well as he." She, therefore, had them taken to the third story of her building, and allowed the well to stay with and amuse the sick. This was, of course, in direct opposition to my order that any child with the slightest suspicious symptoms should be sent immediately to the infirmary, where we had provided a separate apartment for such cases.

The first child was taken ill on Friday, and on Monday evening, after what I had hoped would be my last visit to the infirmary, the matron stopped me to say that she had five children ill with a slight stomach derangement, assuring me at the same time that there was nothing wrong with the throats, as she had carefully examined them. I declined to see them then, having just left a diphtheritic atmosphere, but called the next afternoon, having been prevented from going earlier, owing to urgent professional engagements. To my horror and disgust I found the children had had diphtheria for some days, their sickness having been carefully concealed from me. They were at once removed to proper quarters, but the disease had acquired such headway that in four or five days three of the five died, all of them dying of heart and kidney involvement, being victims, in my opinion of the development and absorption of the diphtheritic ptomaine. After this fresh outbreak we had eighteen other cases, two of whom died. One a child two years old with a very bad family history, all of his family connection being dead, and the other a child four years old, also with a bad family history, who at the height of the diphtheria developed a very violent attack of measles and succumbed to the combined force of the two diseases.

I have only been able to get the charts of the first nine cases, which I here append:

CASE. I.—George T., aged eleven years, entered the infirmary on September 5, 1892. Temperature on entering at 6 P. M. 102°; pulse 120. At 8 P. M. after swabbing, temperature 100.8°; pulse, 100. September 6th, 11 A. M., Temperature, 101°; pulse, 99. 11 P. M. Temperature, 99.4°; pulse, 80. September 7th, 2 A. M. Temperature 98.4°; pulse 84. The diphtheritic patch disappeared. Uninterrupted recovery.

CASE II.—Harry McK., aged ten years, admitted September 4th, 6 P. M. Temperature 98.8°; pulse, 84; throat very much inflamed, but no patch. 5th inst. Throat considerably ulcerated. 8 A. M. Pulse, 80; temperature, 98.6°. 6th inst., 5 A. M. Pulse 69; temperature, 98.4°. Patch disappeared. Uninterrupted recovery.

CASE III.—Thomas H., aged ten years, admitted August 27, 1892, 4.30 P. M. Pulse, 105; temperature 101°. 10 P. M. Pulse 110; temperature, 102.6°. Throat with large, dark patch. Treatment continued through the night, and recorded every two hours. August 28th 12 M. Pulse, 90; temperature, 98.4. 6 P. M. Pulse, 84; temperature, 99.4°. 9 P. M. Pulse, 84; temperature, 98°. 12, midnight, Pulse, 86; temperature, 98.4°. Ulcerated condition disappeared on 28th inst. Uninterrupted recovery.

CASE IV.—Fred D., aged nine years, admitted August 30th, 4 p. m. Pulse, 105; temperature, 104°. 7 P. M. Temperature, 103. 10 P. M. Temperature, 100.6°. 31st inst. Temperature, 99.2°. September 1st, 1 A. M. Temperature, 98.8°. 1 P. M. Temperature, 98.4°; pulse, 80. In this case on entering he had offensive breath, large patch extending back on the fauces, coated tongue, flushed face, bad headache, etc. Recovery was uninterrupted.

CASE V.—Elmer G., aged eight years, admitted August 31st, 2 P. M. Face flushed, throat badly ulcerated, extending upon the fauces. Pulse, 103; temperature, 101.6°. 5 P. M., temperature, 101.4°; 8 P. M., 100.4°; 11 P. M., 100°. September 1st, 2 A. M., temperature, 99.8°; 5 A. M., 99.8°; 2 P. M., 99.4°; 11 P. M., 98.6°. September 2d, 2 A. M., temperature, 98.4°. Uninterrupted recovery.

CASE VI.—Roland S., aged seven years, admitted August 31st. Patch large and extended. Breath very offensive. Glands on left side enlarged. 11 A. M. Pulse, 116; temperature, 102.2°. 2 P. M. Temperature, 103.6°; 5 P. M., 102°; 8 P. M., 101.2°; 11 P. M., 100°. September 1st, 2 A. M. Temperature, 98.8°; 11 A. M., 102°; 2 P. M., 99°; 8 P. M., 98.4°. Uninterrupted recovery.

CASE VII.—Thomas C., aged twelve years, admitted September 3d. 5 P. M. Temperature, 102°; 8. P. M., 103°; 11 P. M., 102°. 4th inst., 2 A. M. Temperature, 102.2°; 5 A. M., 100°; 8 A. M., 100°; 11 A. M., 99.4°; 2 P. M., 98.6°. 5th inst., 2 A. M., 98.4°. Recovery uninterrupted.

CASE VIII.—Willie H., admitted August 27th.

Diphtheritic patch large. Cervical glands very much swollen. Temperature, 7 P. M., 99.6°. Ranged below this until the 29th inst., when at 4 P. M. it fell to 98.4°, and remained so. Recovery uninterrupted.

CASE IX.—Charles W., admitted September 10th. 5 P. M. Temperature, 102.2°. Throat involvement marked. 8 P. M. Temperature fell to 98.6°. 11th inst., as 8 P. M. was 98.4°, and remained so. Recovery uninterrupted.

With the exception of those who died the other cases all presented this same clinical picture. In some of the fatal cases I was obliged to use a spray of hydrogen peroxide in addition to the bichloride to purify the air, on account of the intensely disagreeable odor, but my experience with it as a remedial agent has been so unsatisfactory as compared with the bichloride that I rarely use it, excepting as a deodorizer. The danger of salivation from the sublimate solution seems to be nil, as in a few laryngeal cases I have given as much as the eighth of a grain every two hours in addition to the local use, although in such cases I think the drug should be carefully watched. Nor is there any danger from the patient swallowing the cotton, as in one instant a patient of mine did, owing to the cotton being so carelessly rolled on the holder that it come off in the child's mouth and was swallowed. Even in this case the dose of the bichloride is not excessive. A drachm of the solution only contains one-eighth of a grain, and as the ordinary tuft of cotton used for such purposes will only hold a teaspoonful of the solution, and almost all of that is expressed out of the cotton against the fauces, and expectorated, the amount swallowed is not more than a tonic dose.

The advantages of this method are many, and the rationalé of it appeals very strongly the judgment.

We all recognize the fact that the diphtheritic germ is not markedly aggressive, and we know that a necessary concomitant to its spread is a proper culture field. By experience we have learned that the throat of a delicate child furnishes a good culture medium, while that of a robust child will fight it off successfully. Therefore, anything that detracts from the value of the throat as a culture medium adds to the natural resisting power of the susceptible child and raises him to the level of the child of stronger constitution, who needs no extraneous aid. This desideratum is obtained when we have a wash which, though deadly to the germ, is practically harmless to the child. Then, by the death of the bacteria, the membrane is limited and the danger of subsequent mechanical obstruction is obviated. In destroying the germ we also cause a cessation in the formation and absorption of the ptomaines, thus lessening the risk of paralysis, septicæmia, heart failure, albuminuria, and all the train of symptoms that follow in the wake of this powerful animal alkaloid. Another advantage is that the treatment is quite as satisfactory in the treatment of the less serious throat and tonsillar affections. I have found nothing act so rapidly and certainly in simple ulcerative tonsilitis or in the follicular variety, the subjective symptoms in both yielding at once. Then, again, it lessens the chances of the spread of the disease through a house or neighborhood, and reduces to a minimum the danger to the attending physician, as the disinfection is carried out at the very fountain head of the trouble. Instead of hunting the germs in the nooks and crannies of a room, they are attacked in their own citadel.

And still another advantage in this method of treatment is that no time is lost, as the necessary tablets furnish a part of the physician's obstetric armamentarium. It is my practice to at once give the attendant of my patient a tablet, with minute instructions as to how to apply the wash. My experience has taught me that a good method is to make the applications every three hours, and to simply press the cotton against the membrane, thus soaking it. The second or third day the membrane becomes readily detachable, and usually comes away on withdrawing the cotton. Formerly I thought it necessary to rub and tear the membrane loose, but I have never seen any benefit from it, while it is very annoying to the patient. As the patient begins to convalesce I make the intervals of application six hours, and, finally, twelve hours apart. While my results have been generally obtained by means of the cotton applicator I can see no reason why the atomizer should be interdicted, although in an unruly child it is almost as difficult to use one method as the other.

In conclusion, I claim for the method that, in competent hands, such as Dr. Rennert's, and under the peculiar circumstances in which a perfect check experi-

ment was furnished, such as in my own cases, it has proved a simple and perfectly satisfactory remedial agent, and I beg for it a thorough trial, hoping that it may prove in the hands of others all that I have obtained from it.

POINTS OF SIMILARITY BETWEEN US AND HOMŒOPATHIC PHYSICIANS.

The Annual Address of the President of Philadelphia County Medical Society, Read May 24, 1893.

JOHN B. ROBERTS, A. M., M. D.

In the address which I had the honor of delivering from the Presidential chair a year ago, I gave it as my opinion that this Society should be liberal enough to accept as a member any physician whose education and personal character made him a fit associate for intelligent men. I stated my belief that the test of qualification for membership should not be the college from which the applicant received his diploma; but an education enabling him to understand and appreciate the science of medicine, and an honest purpose to treat his patients by all means and methods, which experience, investigation and research show to be serviceable. It seemed to me then, as it does now, that such a physician's political, religious or social beliefs should not disqualify him; nor his opinion that in "similars" he sometimes finds a remedy of value.

Following out this line of thought, I have undertaken an investigation to determine whether there are any points of similarity between us, who decline to receive any sectarian designation, and those who accept for themselves the name of homœopathic physician. This study has interested me very much, and it is my purpose to lay some of the results before the Society this evening.

None will deny the fact that as a class we, as well as they, are law-abiding citizens, whose culture, intelligence and wealth add to the intellectual and financial prosperity of the districts in which we live. The doctors of village, town or city, are ever respected by the community, and their counsel is sought in many emergencies not strictly medical. This deferential courtesy is extended to all honorable and skilful physicians, without thought as to their belief in, or rejection of, the law of similars. In this amenity of civilized society, then, there exists no difference between us and our homœopathic neighbors. Our mutual social relations also teach us that there should be none. We meet each other in drawing-room, mart, or amusement hall, to find no difference in courtesy, refinement or large-hearted charity. How often do we meet a homœopathic friend with the heartiest of handshakes, because we honor him as a man and love him as a friend. The grasp returned shows that the respect and affection are fully reciprocated.

Much to be regretted is it that a marked similarity exists between the ignorant and half-educated graduate of all kinds of medical colleges. We do not hold a monopoly in the graduation of men who tell State Boards of Medical Examiners that the boiling-point of Fahrenheit is "about 300°;" that the "average respirations are 70 per minute," and that the same disease is called pneumonia when it affects one lung, pleurisy when it affects the other. The ignorant and reckless doctor will always be a menace to the public health, whether he decline or accept the designation "homœopathic." The greater damage is probably done by our half-educated graduates, because the number of homœopathic medical colleges in Canada and the United States is only 26, whereas we have 220. From these colleges there graduated, in 1890, only 391 homœopathic physicians, while our own colleges sent out 4237. The number of medical matriculates in the United States and Canada during the decade between 1880 to 1890 was, in our own colleges, 115,355. The number of graduates was 36,655. The number of

matriculates in the homœopathic colleges in the same decade was 11,366; the number of graduates, 3,883. The percentage of graduates to matriculates in our schools was 30.9; in the homœopathic schools, 24.1. These tables, taken from the statistics compiled by the Illinois State Board of Health,[1] would seem to show that the ratio between the number of students and the persons granted degrees was nearly the same in both classes of medical colleges.

As many medical colleges are commercial associations to manufacture doctors as rapidly and cheaply as possible, it is apparent that their output will be ignorant physicians, whose individual beliefs as to the laws or methods of therapeutics will do little to protect the public from malpractice and criminal medical ignorance. The high-grade medical colleges have recognized the fact that the cure for this public wrong is the establishment of State Boards of Medical Examiners, whose examination alone shall determine the qualifications of the applicant for license to practise. It is gratifying to know that we and the most highly educated homœopathic physicians in the various States agree on the necessity of such State laws. It is true, however, that a number of our medical schools (University of Pennsylvania, University of Michigan, Harvard University, Woman's Medical College of Pennsylvania, and perhaps one or two others) now require four annual courses of college lectures before the student can obtain his degree; and that only one homœopathic college (Boston University School of Medicine), so far as I know, demands this high standard. It is to be hoped that more colleges will soon follow this movement to elevate the standard of medical education.

The text book for students recommended in official announcements afford instructive evidence of the similarity in teaching given the four or five thousand graduates coming annually from the two kinds of medical colleges. The announcements of the Hahnemann Medical College of Philadelphia, for 1891–92 shows that a great proportion of the works recommended are the same as those we advise our students to purchase. Leidy's *Anatomy*, Tyson's *Urinary Analysis*, *United States Pharmacopœia*, Mann's *Prescription-Writing*, the Stillé and Maisch *Dispensatory*, Wood's *Therapeutics*, Pepper's *System of Medicine*, Gross's *Surgery*, Agnew's *Surgery*, Playfair's *Obstetrics*, Duhring on *Diseases of the Skin*, Reese's *Medical Jurisprudence*, and Gould's *Dictionary* occupy no less conspicuous positions in the list there found than in the announcements of our own colleges.

What I have said shows clearly enough that the material out of which medical students are made, and the college training by which they are developed into medical practitioners are very similar, whether the intending doctor expects to become a physician without sectarian title or hopes to belong to the ranks of homœopathic medicine. The students are gentle or boorish, earnest or slothful, intelligent or dull, ignorant or wise, in about the same proportion. They study many of the same books, live in the same boarding-houses, have the same pleasures and trials, and make much the same kind of doctors. The educated, true and earnest are capable of bringing manifold blessings into the sick room; the ignorant, false and careless do infinite harm to the public—the public which, in Pennsylvania, has no protection from such dangers, since the State has not as yet thought it worth while to weed out the grossly ignorant and incompetent by a state examination and license.

A very striking similarity between us and our homœopathic neighbors is the latitude of opinion exercised in the choice and administration of drugs. Many thoughtless persons believe that we give only large doses, the homœopaths only small ones; that we do not use powders or triturates, that they do not write prescriptions, or administer alcohol or opium. Nothing is easier than to show the fallacy of these statements.

Every member of this Society knows that any attempt to restrict one of us to the use of certain medicines or methods of treatment, or to the employment of any stated size of dose, would result in the immmediate rupture and destruction of the Society. Such interference with individual liberty would not be tolerated. Everything and anything that I believe will aid my patient I must have full liberty to use. No organization has the

1 Medical Education, etc., Springfield, 1891, pp. 24 and 31.

right to say what drug or what medicinal dose you or I shall employ in the treatment of disease. The whole field of science, medical and collateral, is utilized in our endeavor to relieve and cure disease. We are bound by no therapeutic law of "similars," or of "dissimilars;" we never have been and never can be. We follow the authority of no man, and are bound by no dogmas; but with full liberty of conscience we act as individuals responsible to no other human agent. This phase of our position is often misunderstood by the public. It was, however, clearly stated ten or a dozen years ago in the deliberately written words of the American Medical Association, which, in speaking of a similar topic, said: "Neither is there any other article or clause of the said Code of Ethics that interferes with the exercise of the most perfect liberty of individual opinion and practice."[1]

The homœopathic practitioner of to-day, as a rule, feels the same liberty as we do, but believes what he calls the "law of similars" being a good indication as to the choice of remedies.

Neither we nor they, unless it be isolated individuals, base our practice on "an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

If the action of homœopathic medical societies, of homœopathic medical journals, and the spoken and written statements of homœopathic physicians are examined, it is evident that very many of those whom the public regards as homœopathists have comparatively little faith in the infinitesimal doses of Hahnemann, or in the infallibility or universality of his law. The gentlemen represented in or by these societies, journals and statements have, it would seem, a belief in the more or less frequent value of the "law of similars" in treating disease; but admit that cases, more or less frequently, require the doctor to use non-homœopathic methods if he is conscientiously to do the best thing possible for his patient. In the words of a resolution passed by the Homœopathic Medical Society of the County of New York, on February 8, 1878, the belief in the law of similars "does not debar us [homœopathic physicians] from recognizing and making use of the results of any experience, and we shall exercise and defend the inviolable right of every educated physician to make practical use of any established principle of medical science, or of any therapeutic facts founded on experiments and verified by experience, so far as his individual judgment they shall tend to promote the welfare of those under his professional care."[1] This statement corresponds with the attitude and practice of us who, as non-sectarians, believe in the science and art of medicine; and would render the subscribers to it eligible for membership in the American Medical Association, the Medical Society of the State of Pennsylvania, or the Philadelphia County Medical Society.

Dr. Joseph Kidd and Dr. W. H. Holcombe, well-known homœopathic writers, believe, with the members of the New York Homœopathic Society, that everything and every method which cures should be utilized, even by those believing in the law of similars as a valuable indication in therapeutics. Dr. Holcombe says a physician professing belief in the homœopathic law is not obliged to limit his practice strictly to the application of that law, but claims everything which cures. Dr. Kidd, who held a position in the London Homœopathic College, made a similar statement.

I think I am justified in the statement that to-day there is comparatively little belief in, or practice of homœopathy as advocated by Hahnemann. There is no doubt that a few homœopathists, represented by Dr. Berridge, the late Dr. Lippe and Dr. Neidhard, believe, or at least did believe, in the infinitesimal doses of Hahnemann and the universality of his law of similars, the truth of which two points is, according to Neidhard,[2] "identical;" but I am inclined to think that the great majority of physicians considering themselves homœopathists reject the idea that diminishing the dose increases the power of any drug. Of those all, or nearly all, give only a modified assent to the law of similars; believing that it is often, perhaps

1 See Journal of American Medical Association, Nov. 19, 1892, p. 611.

1. This quotation is extracted from a criticism of the resolution, contained in a "Declaration of Homœopathic Principles," published in *The Organon*, Liverpool, April, 1878.

2. *Universality of the Homœopathic Law of Cure*, pp. 29–34.

very often, a good rule to follow in selecting a remedy, but that many diseased conditions are best treated by remedies not selected in a homœopathic way. Very many quotations could be made to support my position.

It seems to me that the physicians recognized by the public as homœopaths consists of two classes: First, a small number who adhere to Hahnemann's teachings, which seem to me to be not founded on good evidence, and therefore unscientific and unworthy of credence. Secondly, an increasingly large number who, while entirely rejecting the doctrine of increased power being given drugs by dilution, still have some belief in the law of similars. These last do not wholly rely upon the homœopathic law or methods in treating disease as presented to them in daily practice. It is probable that in many cases a drug originally suggested for a certain disease by a homœopathic text-book or authority is used when that condition is to be treated, without much thought being given to the law; though the drug is administered in powder or pellets, or in a tumbler of water. If this be true, it corresponds with the practice of many of us non-sectarian physicians, who use powders, small pills and solutions advocated by well-known authors and teachers without pausing to inquire the reason for our faith in, and use of, them.

Many homœopathic physicians have their libraries well stocked with journals and text-books, edited and written by non-sectarian physicians, who, of course, repudiate Hahnemann's teachings. Various remedies are advocated in these works for the diseases which doctors are called upon to treat. It seems to me probable that homœopaths consult these books in their libraries and select from the drugs therein recommended such as seem to them to be instances conforming to the law of similars. My opinion is confirmed by a recent review in a homœopathic journal,[1] of a book written by a non-sectarian physician. It says of the book: "The doses are generally larger than would be called for, but the suggestive character of the prescriptions will often give excellent hints to meet individual cases." This is very far from being the practice of homœopathy as Hahnemann taught it; but it is not unlike scientific medicine, which aims to select such remedies as will correct these morbid disturbances and changes in the organs and tissues which are the essence of the disease. In a similar manner many of the text-books used in homœopathic medical colleges are written by those who deny the truth of homœopathy.

Dr. James B. Bell, President of the Hahnemannian Association, in his address last June, said:[2] "Our society numbers in active living members about 150, and it would be a generous estimate, I think, to double that number, as representing in the whole world all those who may be called true Hahnemannians or who are becoming such. If we have patients going to other cities, especially in the West and South, how rarely can we recommend a physician to them, and if the patients are taken to Europe or England, we know of but five or six men in the great cities to whom we can safely intrust them."

Such a statement, coming from an evidently reliable homœopathic source, convinces me that the great majority of homœopathic physicians are very like ourselves in their means and methods of treating disease.

We believe with Rokitansky, that the basis of medical treatment is a knowledge of the morbid disturbances and changes in the tissues and organs. The real homœopathy, if I read Hahnemann and his followers aright, pays no attention to the microscopical and chemical changes in tissues and organs, but believes in selecting a remedy which by "provings" causes symptoms similar to, but not identical with, "the totality of the symptoms seen in the patient."

The great body, then, of homœopathic practitioners, if Dr. Bell is correct, use any drug, administered in any way that seems to them likely to be beneficial. They are, however, called homœopaths, because they have a belief in the partial value of a law of similars, and because non-sectarian physicians usually decline medical association with them. All of these physicians ought to be accepted by us as eligible for professional association and consultation, since they are willing to use any and all methods, and are bound by no exclusive dogma or law. Their preference for remedies selected according to what they consider a good rule in many

1. *N. Y. Medical Times*, January, 1892, p. 309.

2. *The Homœopathic Physician*, Philadelphia, August, 1892.

cases does not impeach their general intelligence or their value to the community any more than the differing opinions of many in our own ranks on other medical topics.

That the tendency of hemœopaths is to drop Hahnemann's views and come nearer and nearer to scientific medicine, is well shown in a recent work of Professor Theodor Bakody, a homœopathist of Buda-Pesth.[1] He says: "The dilution of medicine should not be carried to a point beyond scientific recognition;" and "I do not consider the biological medical therapeutics of Hahnemann a universal one, inasmuch as it covers only that department of practical activity where medicinal therapeutic causal cures can be effected." These views were expressed by him in 1873, and were still his views when the volume was written. A further quotation will show how near he is coming to our views in medicine. "In making drug-provings we should not be satisfied with the manifestations of mere subjective or general functional symptoms, but in accordance with the scientific knowledge of our day also include in the field of our observations the finer pathological, physiological, anatomical, and chemical manifestations."

This method of finding out the action of drugs is indeed scientific, and different from the method of Hahnemann, his immediate followers and present imitators. Compare, for example, Hahnemann's *Materia Medica Pura*, translated by R. E. Dudgeon, M. D., with annotations by Richard Hughes, L.R.C.P.E., Liverpool, 1880.

An indirect evidence of this decadence of belief in Hahnemann's homœopathy is the effort of many homœopaths to explain away the inconsistency of their practice with homœopathic doctrines. Dr. Charles S. Mack, of Ann Arbor, affords curious corroboration on this point.[2] He says that the homœopathic law of similars is "the law and the only possible law of cure," but that there are various principles "upon which useful, though not curative, treatment may be based." He says that iron, lime, demulcent drinks, stimulants, and germ-destroying agents may be useful though not homœopathically indicated, and may lead to the recovery of the patient. This, however, he regards as not a cure but a recovery. It is difficult for me to see the difference as far as the patient is concerned, even though Dr. Mack says (p. 75) that he finds "no impropriety in limiting the meaning which *cure* shall have while considering the claim of similia." In other words, he justifies his belief in the homœopathic law of similia as the *only curative* treatment of disease, by excluding all cases of patients who recover under non-homœopathic methods of treatment. The latter *recover* but are not *cured*. When asked if he would use a chemical antidote to a chemical poison, which was found to be the cause of the acute disease from which the patient was suffering, he replies that he would use such an antidote, but that "even successful treatment with that antidote would not be curative" (p. 123). His faith in the homœopathic law is thus seen to be founded on a hair-splitting of words; and he further says (p. 135), "today homœopathists are, more than formerly, availing themselves of various practices which are distinctly not homœopathy."

Recent publications in the homœopathic journals indicate the same half-hearted belief in the "law of similars," and the almost total rejection of the doctrine of infinitesimal doses.

Dr. D. A. Gorton, a homœopath not unknown to homœpathists, deprecates[1] the use of the words "System of Medicine" as applied to homœopathy. He says it is only a system of therapeutics, and states that he is constrained to regard the law of similars as but a fragment in the grand art of curing disease. He thinks that Hahnemann was wrong in regarding homœopathy as destined to supplant all other methods of treatment. He quotes from Hahnemann's *Organon* to show that a true homœopath must never give a laxative, prescribe a warm bath, nor subdue pain with opium; and indicates his belief that few homœopathic physicians are, therefore, true homœopathists in Hahnemann's sense. He expresses doubt whether, out of the eighty or more homœopathic physicians in Brooklyn, twenty could be found capable

1 Scientific Medicine in its Relation to Homœopathy. Translated by R. F. Bauer, M. D., 1891, pp. 36, 37.

2 Philosophy in Homœopathy, Chicago, 1890.

1 The Drift of Medical Philosophy, revised edition, 1875, pp. 56 and 70.

of rendering in a chronic disease or in an obscure acute disease, a sound prescription according to the law of similars (p. 61). He adds (p. 65) that he has known many professedly strict homœopathic physicians to break up ague paroxysms with massive doses of quinine, use caustics in ulcers, and prescribe emetics, cathartics and sudorifics.

I am quite sure that my hearers will agree with me that we are very like homœopaths in the treatment of disease, if these homœopathic writers give a truthful account of the methods employed by themselves and their colleagues. These statements, moreover, are substantiated by other writers, who speak in a similar strain.

A well-known journal,[1] edited by believers in homœopathy, in a recent editorial made the following statement: "It is apparent to even the casual observer, that scientific study is rapidly bringing all schools more in harmony with each other, and while it eliminates, more and more the theoretical and conjectural, is building up a scientific therapeutics based upon the unanswerable logic of facts, the general outline of which will be acceptable to all."

The same journal suggests (p. 51) that if the societies composed of non-sectarian physicians revise their by-laws so that physicians now called homœopaths may be eligible for membership, the next move should be for the homœopathic medical societies to drop the sectarian name. Could anything show better than this suggestion the slight hold homœopathy has upon many of the supposed followers of Samuel Hahnemann?

The *Northwestern Journal of Homœopathy* says: "The practitioners of homœopathy forty years ago who are now living can scarcely recognize the merchantable article called homœopathy at the present day,"[2] and asserts that the doctors who "really practice homœopathy are very few compared with the proportions who did so forty years ago."

The *Homœopathic News* for March, 1892, says editorially: "We venture to assert that had not our school drifted away from the practice of forty years ago, it would have been dead and buried long since." Continuing, this recognized journal of homœopathy says:

"We have drifted away from the practice of giving a pellet of the two-hundredth or higher, and waiting thirty or sixty days for its curative effects; from the prescribing of a high dilution by smelling the dry pellets, those same pellets 'grafted' by shaking a thousand pure pellets with one medicated by the ten-thousandth.

"We have drifted away from a belief in provings made by taking a single dose of the one-thousandth, thirtieth, or third even, and then recording all the symptoms felt by the power—natural symptoms, colds, diarrhœa, etc., for the next sixty days!

"We have drifted away from the carrying a pocket repertory to the bedside of the patient, and recording the symptoms in columns, and a weary search in said repertory until a mechanical similimum was found.

"We have drifted away from the days when our pseudo-surgery was a disgraceful farce, when we expected silica to open a felon, or hepar sulphur to lance an abscess.

"We have drifted away from the narration of miraculous cures with the highest attenuations, which are not cures at all, but a spontaneous finale of a self-limited disease.

"We have drifted away from the days when our practitioners would sit by the bedside of a woman dying of uterine hemorrhage, hunting in a repertory for the 'indicated remedy,' while the vital fluid was ebbing away, without recourse to the tampon or ergot."

Dr. Conrad Wasselhoeft, in a paper read before the Southern Homœopathic Medical Association,[1] admits that homœopathists, in order to join the ranks of a united medical profession, may "have to recede somewhat from the too premature axiom of the universality and infallability of our law of similars." He apparently signifies his assent to this necessity.

In an article on "Defects and Limitations of the Materia Medica Homoeopathica," a writer, who is a homoepathist, discusses[2] the difficulty of selecting the proper remedy, because of the possibility

1 *New York Medical Times*, May, 1892, p. 48.

2 Reprinted in *New York Medical Times*, May, 1892, p. 55.

1 *New York Medical Times*, January, 1892, p. 313.

2 *New York Medical Times*, November, 1891, p. 225.

of the patient not detailing symptoms accurately, and of the inaccuracy of some of the drug effects attributed to remedies. He makes this pertinent statement:

"It is not too much to say that clinical experience does not verify the half of the symptoms to be found in Allen's mammoth collation of materia medica, and, like the man who never speaks but half the truth, one is left to wonder which half of the recorded symptoms is true and which is false. Many of the prominent drugs in the materia medica were proved, as our correspondent says, in the thirtieth potency—that is to say, in the decillionth dilution. What manner of man must he be who can believe that there is an atom of a drug in a drop of that dilution, or the least degree of drug-force!"

The unreliability of homoeopathic "provings" and of the derived "pathogenesy" of drugs is here admitted even by a believer in the law of similars. The *Hahnemannian Monthly*, whose homoeopathic orthodoxy will, I presume, not be impeached, publishes an article[1] by Dr. J. P. Dake, in which the author says: "But the reliability of pathogenesy has not suffered alone from such causes. Some drug-provers have undertaken to note symptoms produced by doses in which there was no probability, hardly a possibility, of the least drug influences; and some have passed by a great number of articles, having promise of medicinal power and usefulness, to prove some that are eminently disgusting as well as useless."

Even Charles Neidhard has written: "For some peculiar diseases the homoeopathic law requires us to give large doses."[2]

This rather lengthy series of quotations from homoeopathic writers has been made to establish my point that we and most of them are for all practical purposes similar and at one. They, as well as we, are free to choose whatsoever is thought to be the proper remedy for a diseased condition, and to give it in whatsoever dose is considered curative. Speculation as to the manner of action of a remedy or the best method of selecting it is only interesting from a philosophical point of view. Difference of opinion in such matters makes us no less like them than it makes me different from such members of this Society as believe pulmonary consumption to be of nervous origin, or from those who consider aseptic trephining a dangerous operation.

Another point of similarity between the members of the Philadelphia County Medical Society and the homœopathic practitioners of this city and State is, that much attention is given by both to hygienic and dietetic measures in the management and treatment of the sick. The value of a faithful study of these departments of medical science is admitted by all intelligent practitioners. Again, all of us believe that much priceless information has been gained by investigations into the effects of drugs upon the healthy human organism. That the results of such study can be utilized in the treatment of disease is averred by writers such as Wood, Bartholow, and Hare in our ranks, and by the homœopathic authorities, Dake, Farrington, and Hughes.

When our patients are suffering from symptoms which cannot be removed by any known means, or from diseases which experience has shown to be at present incurable, we and they resort to palliative measures. Remedies which lessen suffering and prolong life, even if they have not the least curative effect on the symptoms or disease, are often administered by you and me and our homœopathic neighbor. Opium, one of the most conspicuous of these drugs, is alike used by us all; and by the way, serves well to illustrate the fact that even homœopathists do not adhere rigidly to their supposed custom of administering remedies singly. It, as we all know, is a combination of many valuable remedies.

A glance at the catalogues of Boericke & Tafel, known the country over as manufacturers of homœopathic remedies, will prove to you that my statements are well founded. In them are seen price-lists of triturates of opium (1x, 2x, 3x, and 6x); sepia (2x, 3x, and 6x), mercurius vivus, silicea, morphium, graphites, and china, as well as of iodoform, podophyllin, rheum, and other names more familiar to our ears. It is more than probable that these chemists supply physicians of all kinds with these triturates, as well as with their one-drop tablets (made from mother

1 "Reliability in Materia Medica," read before the Southern Homœopathic Medical Association, January, 1892, p. 2.

2 Universality of the Homœopathic Law of Cure, second edition, p. 30.

tincture) of byronia alba, aconite, senna, and squill.

When Charles J. Semple wrote, in 1874,[1] that constipation was to be treated by rhubarb and Seidlitz powder and advocated the use of morphine in colic, he certainly was not dissimilar from us in this respect, nor we from him. Yet he was a pronounced homœopathist.

I have already indicated by quotations from homœopathic sources that few homœopathic practitioners now believe in the augmentation of the medicinal power of a drug by diminishing the quantity administered. Hahnemann's assertion of the increasing potency of these infinitesimal doses seems to have lost its supporters among homœopathic practitioners. It is needless to say that in this disbelief we are like them.

The study which resulted in the production of this address has brought me to the same conclusion as that indicated by Dr. Henry O. Marcy, the recent President of the American Medical Association. He says[1] that "Homœopathy was born, in a measure, as a protest to indiscriminate heroic dosing with powerful drugs," and its popular success was partly due to "an unreasoning prejudice in the minds of a narrow conservative leadership" which characterized our predecessors. He intimates that we and the average homœopathic physician are so nearly alike, except in name, that the great body politic of our profession should institute measures to make it easy for such men properly educated to enlist in the grand army of workers devoted to unbiased investigation and the practice of scientific medicine.

Dr. Henry I. Bowditch, our distinguished associate, put it even more strongly when he wrote,[2] not many years since, that homœopathy and eclecticism were the legitimate offspring of the absurdities of the medical profession at the time of their advent.

A short time ago a paper on revision of the By-laws of the American Medical Association was read before the Chicago Medical Society by Dr. J. C. Culbertson, the well-known editor of the *Journal* of Association. The action of the Society in approving the sentiment of the paper indicates that its members share the views of President Marcy and Dr. Culbertson; for the first important clause of the proposed revised By-laws provides that the members of the American Medical Association "shall be physicians in good standing in the medical profession, who are graduates of reputable medical colleges, and who in every respect conduct themselves as educated physicians and as gentlemen."

If these opinions of such recognized authorities are correct, and I do not doubt it, it is good evidence that, in the course of five or six decades, mutual observation and gradual deviation from our respective original standards have brought us and the homœopathists so near together that the similarities quite outnumber the dissimilarities.

1 *The Science of Homœopathy*, pp, 32, 33.

1 President's Address, Journal of American Medical Association, June 11, 1892, p. 725.

2 The Past, Present, and Future Treatment of Homœopathy, Eclecticism, and Kindred Delusions. Boston, 1887.

Facts to be Considered by Obstetricians.

1. Since the last meeting of this Society, the operation of Symphyseotomy has been performed 18 times in the United States, and twice in Canada.

2. This operation was performed 11 times in Naples, and in no other locality, in 1891; but spread in 1892, from Italy to 8 other countries, and 71 women in all, were operated upon.

3. The Porro-Cæsarean operation has been performed 28 times in 13 years, in the United States, with 11 deaths; 7 died out of the first 10, and one out of the last 12.

4. The Conservative Cæsarean operation has been performed 75 times in the United States, with 28 deaths: 15 died of the first 25, and 3, of the last 25. Of the last 16, one woman died, and her child also. She was in labor seven days; had a placenta pravia, with a rigid os: she survived twelve hours, and her child two days.—*Robert P. Harris, M. D., to the American Gynecological Society.*

First Boy: "No, sir, you don't catch me shamming off sick to stay home from school and get dosed up with castor oil and such stuff." Second Boy: "Oh, I'm all right on that. We're homœpaths at our house."—*Life.*

SOCIETY REPORTS.

THE MEDICO-CHIRURGICAL SOCIETY, OF LOUISVILLE.

Stated Meeting, March 17th, 1893.

THE PRESIDENT, Dr. F. C. Simpson, in the Chair.

CHRONIC ARTICULAR RHEUMATISM.

DR. A. M. VANCE: I have a little girl at the Children's Hospital that was sent in the other day by the Charity Organization the subject of chronic articular rheumatism. A curious feature of the case is that this growth was found on the large finger of the left hand. It is about 1½ inches in length and seemed to be a horny extension of the finger nail. I have seen the condition several times before.

CONGENITAL CLUBFOOT—OPERATION

No. 2. The other specimens are astragali removed from a case of congenital clubfoot, child two years old. I saw this patient when a month old, but did not begin treatment until it was three months old, owing to the very small size of the feet. I treated them with comparative regularity for some time, but was never able to correct the position of the feet without operation. It was an extreme case of equino-varus. The bones were removed by a semilunar incision on the outer side of the feet, and the result has been very satisfactory. It is the first time I have ever removed any of the tarsal bones for the relief of talipes, but I am certain a cure in this case could never have been accomplished without the bone operation. I am now able to get the feet in almost perfect position, and the ankle joints seem to be about as good as normal. Edidently the astragalus had nothing to do with the movement of the joint, as it was entirely outside of the arch.

DISCUSSION.

DR. C. W. KELLEY: I would like to ask Dr. Vance if there is a motion of the joint where the astragalus is removed; what the future of these cases is.

DR. W. L. RODMAN: In regard to the second case reported by Dr. Vance, removal of the astragalus: This is an operation that I believed was first popularized by Dr. T. G. Morton, of Philadelphia; my friend and class-mate, Dr. H. A. Wilson, who is Professor of Orthopedic Surgery of Jefferson College, is also fond of the operation. Before my last visit to Philadelphia he had performed the operation on both feet of a patient, and I saw the case about the second or third dressing. Whether or not there is perfect motion of the joint after this operation, it seems to me the question Prof. Kelly asks is a very natural one; what is the future of these limbs after the astragalus is removed? I am not sure whether good motion is secured after the operation or not.

DR. A, M. VANCE: I saw a number of cases operated upon by Morton, in which the feet were perfectly flat; the children, however, walked in a "peg-leg" style, had no spring, but were able to walk very well. By examining the foot you could get a good deal of passive motion, just as can be done in the case reported by me. I was opposed to his operation, and did not believe any infantile case would refuse to be relieved by the ordinary methods, but I treated this child under close observation for twelve months, using several mechanical appliances changing them three or four times. The feet were so very small, however, that no grasp could be gotten so as to make manual replacement sufficient to stretch the interior structures. There has been no trouble whatever since the operation; the wound healed perfectly; that is the right foot healed by absolutely primary union, the other had a discharge of synoveal fluid for a while, but no inflammatory reaction and is perfectly healed now. I have the feet in over-correction now in boots. A week ago I changed the boots and tested the motion, which seemed about as much as in the normal foot. I believe they will have to be held in correction for quite awhile, as the structures on the outer side of the ankle are, of course, very much too long.

DR. W. L. RODMAN: What do you

think of the method advocated by Phelps, where he cuts through everything down to the bone, in these extreme cases of club-feet.

Dr. A. M. Vance: I believe, except in very extreme cases, it is unnecessary to resort to any surgical procedure greater than tenotomy and replacement, and even in extreme cases that have been walking four, six, or ten years, with bursæ development and hypertrophy of the bone, I have been able to relieve in an incredibly short time. I think the Phelps operation is good in certain cases as the results are brought about quickly, but it seems an unnecessary amount of cutting and I believe that these structures will remain tender. He cuts down through everything, blood vessels, nerves, ligaments, etc., leaving the gap to granulate and heal under antiseptic dressing. He reports wonderful results, but I do not believe his operation has been generally adopted by orthopedic surgeons. I believe that this cicatrical tissue is not as good as if we leave all the structures there, and further we are liable to have an over-correction by this treatment, which is even worse than club-foot.

Dr. D. T. Smith: You have all heard of the case of the Valedictorian of the University class, Dr. R. W. Bolling, who was, a few weeks before the commencement, suddenly attacked with a peculiar disease winding up with blindness. The symptoms were so little typical of any particular disease that there has been very great uncertainty about the diagnosis. As far as I can gather they were about as follows: Young man in good health on last Tuesday two weeks ago; took an active part in a snow-balling contest at the University, and some hours afterward, while warm, ran to a fire somewhere in the city, returning about eight o'clock. I think probably about eleven o'clock he was seized with a severe rigor which lasted for some time; the next day he had some fever without pain except in the legs over the joints; aching in the small of his back; intense nausea and for forty-eight hours persistent vomiting but no headache. I do not know whether the vomiting was projectile or not. At the end of the second day there appeared a coarse eruption on his body, and about that time an iridochoroiditis set up with result of complete loss of vision. I do not know just how long the eruption lasted, but it disappeared, and the joints then began to swell and were tender as well as painful. He gained after that some in general strength; his eye trouble going on from bad to worse, if not already as bad as could be. A week after that time he was able to walk a couple of blocks and went out two or three times. It was then discovered that there were symptoms of heart failure, pulse being rapid, irregular and weak, and it was found best to continue in bed. This evening after three weeks, he is scarcely able to be out of bed; very little appetite, still emaciated, growing weaker. I think he is probably weaker than he has been at any time previous. Mind has been clear except that he had delirium at the beginning of the fever.

The question is, what is the diagnosis, what was the cause of the condition? The diagnosis has been provisional; no certain conclusion having been reached. If cerebro-spinal fever, which I rather think it was, the absence of headache at any time makes it an exceptional case. The chill and vomiting were typical of this trouble. In certain cases of cerebro-spinal fever the disease has been mistaken for rheumatism owing to the pain and swelling of the joints. Swelling of the joints subsided after the eruption disappeared; there is weakness and indications of blood degeneration as shown by the debility and the irritability of the heart, etc. No trouble about the kidneys as far as I can learn.

DISCUSSION.

Dr. J. M. Ray: This young man was taken sick on Tuesday; Dr. Cottell saw him first. At the time measles was quite prevalent among the students and the suggestion was that it was possibly a case of measles. Later the spots became much larger than the eruption of measles, and it was suggested that they resembled very much, varioloid. I was called to see the patient. I found him complaining very much about his eyes, intense fear of light and great conjunctival injection. He was in a darkened room so that it was impossible to make a thorough examination. I did not have my ophthalmoscope with me, but opened the window and tried to reflect a light upon the eye, but he was so intolerant to light that I did not succeed in

getting a close examination. The pupil failed to respond well to light. I did not make any diagnosis, but ordered atropia and hot applications. When I saw him again the anterior chamber and everything in front of the pupillary space was blocked with pus. Coming on so rapidly I knew that such an inflammation would probably be disastrous to sight and gave an unfaforable prognosis. The eruption still continued and there was on the arms and chest large, dark, diffuse spots similar to hemorrhagic measles. The eye symptoms went on without varying their course until the entire tract was involved in an extensive inflammatory condition, and infiltrated throughout with lymph and pus. I made an incision through the cornea letting out the pus, and washing out the anterior chamber as well as I could. The pus was so thick and so mixed with lymph that a quantity was pulled out with forceps and cut off. The eruption took a peculiar course; the second time I saw the case I noticed large purplish spots and about the same time the wrist and elbow joint became involved. The elbow swelled until it was much larger than normal, also the fingers and wrist joint became involved. On the chest and along the legs there were large elevations which were very red and tender on pressure. The toe joints also became inflamed and very tender. These subsided without evidence of pus formation. His mother says he had measles when a child. There was a child in the house about two years old that has never had measles and this child played around the room and has not developed measles. In conclusion I would say it is evident that the purulent condition in the eye is secondary to some constitutional trouble, but just what I am unable to say. I have seen similar conditions following cerebro-spinal meningitis.

Dr. C. W. Kelly: What was the pulse?

Dr. J. M. Ray: The temperature ran up to 103° F. I never noticed particularly as to the pulse (as several physicians saw the patient) until after the general symptoms improved and I was left in charge of the case, then I watched the pulse and noticed one day it went up to 120°, very irregular and weak. I asked him about it, and he said he had noticed his heart had been out of fix at times ever since he had been sick; on this particular occasion he said he thought he had used too much atropia in the eye producing this rapid and weak pulse.

Dr. S. G. Dabney: Rheumatism would be the first thought in my mind. The eye symptom developing in connection with inflammation of the joints, fever, heart disturbances, etc.—I have seen symptoms very similar to those following rheumatism. I think a number of us saw such cases about a year ago. I reported one case to this society at that time, occurring in a young lady. I believe rheumatism is often accompanied by an eruption of this character, and would like to ask the question if this is not the case.

Dr. J. M. Ray: The joints were not sufficiently reddened and sufficiently tender to suggest acute articular rheumatism. I understand there is no rheumatic history and purulent eye disease is not characteristic of any form of rheumatic trouble with which I am familiar. If it be rheumatism the eye disease is more likely to be simply plastic.

Dr. C. Skinner: In answer to Dr. Dabney's question in regard to rheumatism: I have seen several cases of rheumatic trouble attended with spots on the skin. Very frequently there is a great tenderness of the joint and occasionally intense pain, still no swelling or redness. I want to mention one case that I have seen within the last two weeks, which is just like the one reported except the eye symptoms. Dr. Rodman will remember I asked him to assist me in the enucleation of a tumor of the axillary space in a child which operation did not materialize. I was called to see its mother, a lady suffering from an attack of rheumatism; I saw her with pain in both wrists and both ankles. The second day after the first manifestation she called my attention to a number of spots over her arms; upon further examination I found these spots extended over the whole body especially on the legs and thighs, large red spots, tender and very sensitive. I made diagnosis of acute articular rheumatism, and put her on salicylate of soda in very heavy doses. The symptoms partially subsided but did not entirely leave her until I stopped the salicylate. I then gave her bicarbonate of potash; there was some nausea possibly due to the fact that she was taking so much medicine. For a day or two her temperature was 102°F. There was no photophobia or condition of the

eyes to attract marked attention; and no headache that I could attribute to the rheumatic trouble.

Dr. A. M. Vance: It seems to me the case referred to by Drs. Smith and Ray must have had some marked septic origin; (I believe this theory has not yet been mentioned) septic material introduced from without even through very small inlets might give rise to the symptoms present in a very short time. I feel sure that this must have been the cause of the trouble.

Dr. J. G. Cecil: I believe that the case referred to has something to do with quite a number of very obscure cases that I have heard of recently. I have seen three or four lately that while they were not in every respect similar to this case, in some respects they were. I was called by one of the students at the University to see a young lady who had come in town to attend the commencement exercises last week. On Tuesday she was seized with quite a violent attack of fever accompanied with intense nervousness and headache. When I saw her temperature was 104½ to 105° F., she had exquisite tenderness about the wrist joints and very slight redness. The case looked to me like one of acute rheumatism and I so expressed myself, put her upon a course of salicylate of soda after having given her a purg. The fever went down rapidly and never rose again; she went home today practically well without any further manifestation of the rheumatic symptoms. In the same house a student of the University was also afflicted at the same time with very nearly the same symptoms; intense headache, nausea, vomiting, high fever and delirium. I did not see this case but was told by Dr. Goodman about it. A week ago I was called to the country to attend the daughter of a physician well known to most of us, who was seized very suddenly with intense fever, 106° F. and delirium from the start, very much impressed and remained so for two or three days. I saw her on the third day of the illness, temperature then 105° F., she had some tenderness about the ileo-cæcal region. It was feared she was developing appendicitis, or there was some obstruction of the bowel, but this afterward proved not to be the case; the fever likewise went down gradually without any special attempts at reduction by medication, and she is about well now. So it seems to me there is a peculiar class of fevers—I do not know whether they should be called fevers or not—but of diseases that are prevalent at this season of the year, which I cannot understand. I do not know what they are. All of them thus far that have come under my observation have terminated favorably. Some of the cases have been diagnosticated one thing, and some another and I believe I have been disappointed in the diagnosis of every case. I have been forced to the conclusion that they are irregular or unusual forms of grippe. None of the cases referred to by me have shown any special eye symptoms.

Dr. D. T. Smith: I have seen three cases of a similar character to those reported by Dr. Cecil, within the last week, the initial symptoms in every case being intense pain, headache and fever. I have been a little backward about saying it, but I have not been able to classify them except by supposing that there is a mild form of cerebro-spinal fever prevalent in the city.

As to the case of the student Dr. Bolling: The vomiting and chill would not indicate rheumatism; this disease never commences with persistent rigor. Rheumatism never commences with persistent uncontrollable vomiting lasting forty-eight hours. I think cases of cerebro-spinal fever must have been mistaken for rheumatism on account of the joint involvement. Taking into consideration all the symptoms in the case reported by me, and those referred to by the several speakers, I am very strongly inclined to the opinion that the trouble is cerebro-spinal fever.

CASE OF APPENDICITIS—OPERATION—DEATH.

Dr. A. M. Vance: I was called by Dr. McDermott at three o'clock yesterday to see a gentleman; German; forty-nine years of age; very fleshy. He gave the history that in January he had some bowel trouble which yielded to castor oil and he recovered. In February he had another attack preceded by diarrhœa which was relieved. For a week prior to the time Dr. McDermott was consulted (he was called sixteen hours before he asked me to see the case) the man had been feeling a little "out of sorts," but he thought it

was an attack similar to those he had formerly suffered with and kept around attending to his business. At five o'clock Wednesday afternoon he was taken suddenly with great pain in the abdomen, and he got up stairs with difficulty and went to bed. Dr. Geo. F. Simpson was called in and gave the man a hypodermic of morphine, Dr. McDermott came several hours later and found the man with marked symptoms of shock; he made diagnosis then of probable appendicitis. It was necessary to administer more morphine on account of the severe nature of the pain, salines were given without result, pulse gradually increasing in frequency, temperature 103° F. at one time. I saw the patient at three o'clock yesterday, found temperature 101½° F. pulse 120, abdomen very much distended, great rigidity of the abdominal muscles, considerable tenderness over the whole area of the peritoneum, tenderness being particularly referred, however, to the McBurney spot. We advised an operation at once; Drs. Roberts, Kelly and Anderson afterward saw the case. Last night at seven o'clock the abdomen was opened; an incision was made between the anterior superior spinous process of the ilium and the umbilicus. The man was very fat, fully three inches of adipose tissue was encountered before the true wall was reached. As soon as the peritoneum was punctured pus came out in considerable quantities. With some little difficulty the appendix was found and removed. At time of the operation the man's pulse was 128. The appendix was quite small and as it was lifted out the distal end was torn and separated, but before it was torn Dr. Roberts and I detected a perforation about the size of a match in the lower portion. The two pieces of appendix have been carefully put together by Dr. Anderson and you can plainly see signs of great localized congestion and make out the perforation. The appendix between this congested end and the cæcum was very small and white. The man had general suppurative peritonitis, rupture having taken place probably at five o'clock day before yesterday afternoon when the severe symptoms developed.

This instance shows how treacherous these cases are and how important it is to make early diagnosis if possible, so that relief may be obtained by surgical procedure. I have operated twice recently where perforation of the appendix was about to take place, and the patients recovered; I have operated twice where perforation had already taken place and both patients died. This man died four hours after operation in shock. He secreted very little urine for several hours prior to operation, and two hours after the operation had been performed I catheterized the bladder and drew off about an ounce of urine; I examined it and found albumin.

DISCUSSION.

Dr. T. L. McDermott: Dr. Vance mentions two cases of appendicitis in which he operated before perforation took place and in which the operation was successful; also two cases in which perforation had taken place which were not successful. This is the point I want to call attention to. I have had in the past week two or three cases of colic in which there was evidence of as much distress as this patient had. I have frequently had cases of colic in which there were symptoms apparently just as severe as have been found in cases where appendicitis has been made out and where peritonitis has followed, and it has been a serious question in my mind whether often in cases where appendicitis has been diagnosticated they were not purely cases of colic. While this man had the general symptoms of appendicitis still, owing to his having had several similar attacks and owing to the peculiar condition of the patient, I did not feel that I was justified in saying so positively and advising operation. I do not believe if Dr. Vance had been present when I first saw the patient, he could have said positively that it was appendicitis. The question is whether it is wise to recommend an operation as serious as a laparotomy in cases that may prove to be nothing more than ordinary colic. I am sorry now, however, owing to the fatal outcome of the case, that Dr. Vance did not see the patient with me early in the attack; still as I had treated this patient in several similar attacks, I had no reason to believe that relief would not follow ordinary treatment as had been the case on previous occasions. How can we discriminate in these cases between ordinary colic and appendicitis when the symptoms are often identical. The responsibility is very great and certainly it would be a

mistake to go into the abdomen in ordinary colic. It is a serious question in my mind whether laparotomy is indicated in these cases. I do say frankly, however, that in the two cases upon which Dr. Vance operated, I believe the result would have been the same with or without operation. While I am a little chaotic in regard to these cases, I believe in another case I shall summon consultation earlier, but in the case reported I do not think operation would have been successful had it been performed earlier. The operation was performed twenty hours after the seizure, four of which were necessarily lost in the attending consultation and subsequent preparations.

Dr. Turner Anderson: In the case reported I do not see how it would have been possible to have made a diagnosis that would have justified a laparotomy earlier than was done, especially as the patient was able to be up and attend to his business only a few days prior to his death, and, further, as he had been subject to frequent attacks of abdominal trouble which yielded promptly to the ordinary treatment.

Dr. A. M. Vance: I do not believe it is ever possible to tell just exactly the condition we will encounter when the abdomen is opened, but I do think diagnosis can be made with sufficient accuracy to justify operation in nearly every case. Drs. Anderson and McDermott, in my opinion, have both laid too much stress upon the dangers of a laparatomy. It is now a well established fact that laparotomy in competent hands and under favorable surroundings is a comparatively safe surgical procedure, and the operation performed last night, had it not been for the patient's serious condition, could have done no possible harm. Therefore, I think in the not far distant future all of these cases will be operated upon in the stage that Dr. McDermott first saw this patient. I believe that these cases ought to have the benefit of the doubt and a laparotomy be done for the purpose of diagnosis; I believe that this will eventually be the practice.

In regard to the differential diagnosis—I would not be so presumptuous as to say positively in every case that I could tell exactly the conditions that would be encountered when the abdomen was opened, but I cannot think of anything else but perforative appendicitis or perforation of the bowel owing to some other cause that would produce general peritonitis in the male except traumatism. Of course the perforation of typhoid fever is not considered in this case, as there is no such history. Dr. McDermott made the diagnosis of appendicitis when he first saw the patient, and I firmly believe if operation had been performed then, the chances would have been very favorable for recovery.

Treatment of Hip Disease.

Townsend (*New York Med. Jour.*) considers this subject under the following heads:

1. General Treatment.—Improve the hygienic surroundings, out-of-door life, change of residence to the seaside or mountains, tonics and cod liver oil.

2. Local Protection to the Joint.—Two methods—rest in the recumbent position, and immobilization by the aid of a splint while the child goes about.

3. Treatment of Abscesses.—Free opening is preferred when abscess is large, followed by scraping and treatment by iodoform, guaiacol or balsam of Peru.

4. Correction of Deformity.—By (1) rest in bed with extension; (2) immobilization of the joint; (3) forcible correction without an anæsthetic; (4) correction under an anæsthetic. The first two methods are preferred.

5. Excision.—Except in rare cases, excision should be restored to only when abscesses are extensive, destruction of bone great, or the hip of the patient endangered by excessive suppuration or amyloid changes. Koeig's statement, that four-fifths of all patients with tubercular joint disease have also other forms of tubercular disease, is probably an over-estimate; but one of the principal arguments in favor of excision has been much weakened since it is now known that but rarely the bone lesion is the only focus. The author considers that excisions are seldom called for.

Alcoholism (Chronic).

Dr. Gerhard recommends the following:

℞ Tincturae capsici.....
Tincturae zingiberis āā..... ʒi.
Tincturae valerianae ammon....
Tinct. gentianae comp. āā. ..... ʒii.

M. Sig. Take a dessertspoonful in a teacup of hop tea three or four times a day.

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SATURDAY, MAY 27TH, 1893.

EDITORIAL.

A GRATUITOUS INSULT.

We recently received a circular letter from a medicine company offering "a splendid chance to make money, a chance of a life-time to secure a fine business—honorable, legitimate and large paying." A yellow folder contained information and encouragement to prospective agents and gave a list of premiums ranging from a five-shot revolver to a "gent's solid gold hunting-case watch." References were given to a number of business houses and individuals, including several whose names one would scarcely expect to find in such a list. Accompanying the folder was a copy of *The ——— Medical News and Literary Casket*. Passing over the literary gems, we are more interested in the announcement of Dr. So-and-so's Cascara Compound, his King of Pain ("for aches, pains and soreness of all kinds, external and internal, also wonderfully curative in cholera morbus, diarrhoea, dysentery and all looseness of the bowels"), his celebrated liver pills and several other proprietary compounds bearing the names of other "doctors." The last page of this periodical is filled with reports of wonderful cures by physicians, clergymen and others. One fond father writes "I had a child that got so bad with worms that they crawled out of its nose and mouth. I used a box of the worm confections which knocked them stiff and I have all reasons to believe, saved the child's life."

After the first feeling of amusement passed away, we confess to a growing resentment at the audacity of a company which requests physicians in good standing to act as peddlers of its nostrums and which boasts "We point with pleasure to the fact that among our agents are found many of the most successful physicians of the country." Yet we can hardly deny that this assertion has some foundation in fact, since we find frequent instances of regularly graduated physicians engaging in all sorts of quackery and since men of renown in the profession lend their influ-

ence to the use of secret compounds whose only plea of respectability is that they are not openly advertised to the laity. It goes without saying that shrewd business men will not waste printing and postage in scattering their advertisements among medical men unless they have good reason to believe that, in a profitable proportion of cases, a favorable response will be made to their overtures. The responsibility of this deplorable state of affairs rests not with the medical profession as a whole but with the men who grant diplomas and who admit uneducated, almost illiterate students to medical colleges. If a decent general education were a prerequisite to matriculation in every medical school and if a thorough acquaintance with strictly medical studies were required before graduation, there would be little trouble in drawing the line of demarcation between legitimate practice and nostrum-vending, without fear that the latter would encroach upon the former.

Professional dignity is not, however, the only sufferer from the patent medicine evil. The people who contribute so lavishly their praises of panaceas, and who allow themselves to be snatched from the grave with such facility, after having been given up by several prominent physicians, are the real victims. There are certain proprietary medicines which are in themselves good enough prescriptions; for example, several pleasant laxatives, an English gout remedy, and a brand of quinine pills without which, it is said, that southern Michigan could never have been settled. Even these nostrums, however, are good only when compared with their viler rivals. The first need of a sick person is good medical advice and diagnosis, and the second properly adapted medicines. We can scarcely imagine if a tailoring house should advertise clothes of the best quality expressed at reasonable rates to any one who should order them by measure, that many persons would feel confident of their ability to fit themselves. But in the case of quack medicines, not only do people show the blindest confidence in the quality of the preparations advertised, but with the most amazing facility they make diagnosis of kidney and liver trouble, consumption and malaria. Fortunately for their vanity if not for their health, the misfits between the measurements of the needs of their internal organs and the ready-made cure-alls are not so apparent as if they were worn on the back.

Another and more dangerous class of proprietary medicines is illustrated in the "King of Pain," for internal as well as external use, with which prospective medical agents are to perform deeds of philanthrophy while acquiring a fortune for themselves. We can look with some degree of equanimity on sarsaparillas and other tonic nostrums but we must remember that a medicine advertised to remove a definite and easily recognized symptom must contain a large dose of a powerful drug. Headache powders are likely to contain excessive amounts of acetanilide and cocaine, while the diarrhœa and pain medicines are, almost without exception, opiates.

In our opinion, the laity are themselves responsible for the existing state of quackery. Privately and publicly have they been warned against this evil. Individual avoidance and concerted prohibitory legislation lie entirely in their power but as long as they prefer to attribute arguments of the regular profession to selfish motives, quackery will continue to flourish. While, however, we may resign ourselves to the inevitability of the patent-medicine business, we, at least have the right to demand that it shall keep aloof from the regular profession without attempting to proselyte our weaker brethren.

TRANSLATIONS.

Contributions to the Pathology of Psoriasis.*

The author, Dr. J. Schutz, reports a hundred cases occurring in his private practice—66 male, 34 female. Ninety-five cases ranged between the years of 9 to 24. One had arrived at the age of 64. Three occurred in the second and one in the third year.

A history of heredity was present in 28 cases; in all cases without exception there was a profuse growth of hair, particularly on the outer side of the arms and shoulder blades. The color of the hair was black in 18, dark brown in 57, light blond in 25. The complications met with, were acne (6 times); lichen pilaris of the extensor surfaces of the extremities, (4 times); furunculus of the neck, (5 times). Eczema was never noticed. One patient suffered from diabetes, two from tuberculosis. The seat of eruption was not uniform as a rule; generally, however, the plantar and palmer surfaces, the upper eye-lids and mucous membranes are not attacked. The extension of the eruption is usually symmetrical; a return on a previously cured location presents greater difficulties for treatment.

The eruption seems to have a predilection on surfaces where the integument is stretched, or where the bones are immediately under the skin. The cranium was the seat of primary attack in 36 cases and in 11 cases it began primarily around the nails (Psoriasis of the matrix of the nail.) In a case in which there was a return two (2) consecutive times, acute articular rheumatism accompanied the last attack. This confined itself to the larger joints. One joint of the arm became partially anchylosed. Bourdillon reports similar cases.

In another case in which there were two (2) consecutive returns, bronchitis formed one complication and at the other time ischiatic pains were present.

Microscopical investigations of the patches showed a deep infiltration extending down to the papillæ, which on removal would bleed readily.

The redness of the attacked portions was not due so much to hyperæmia as to the atrophic changes which allowed the blood vessels to be nearer the surface. Another factor was the dimunition of keratohyalin.

The occasional presence of odema in the connective tissues was regarded as a passive engorgement. Prognosis was favorable in those cases which had not been previously treated or had had but few returns. Complicating eczemas resulting from irritating applications, usually prolonged the cure, and predisposed to return.

The author concluded from his observations that it was better to err on the side of too little treatment than too much. Duration of treatment extended over a period of 4 to 11 weeks and consisted in the use of tried remedies; arsenic, tar, chrysarobin, pyrogallic acid, which usually proved satisfactory.

The history of two cases particularly interesting from the fact that a change of climate to a higher altitude, always brought about a spontaneous cure, the disease having attacked the entire body.—*Arch. f. Dermatol. u. Syph.* xxiv, 1892.

Collection of Statistics on Anæsthesia*

During the current year fifty-eight reports have been made by Gurlt of Berlin. upon this subject, many of which were collected in foreign countries.

The total number of cases anæsthetized are 57,541, of these 11,464 nitrous oxide was used in dental practice of the University of Berlin, and will be excluded from the following statistics. During the two first years of the collection of statistics on this subject, the figures stood at 157,815, among this number there were fifty-three deaths, making in all about one death in 3,000 cases of anasthesia.

Viewed from the standpoint of different anasthetics in relation to their mortality, we have the following figures; 1:2899 in chloroform, 1:4118 in chloroform and ether, 1:4538 in bromide of ethyl, 1:199 in pental.

With the use of absolute pure ether in 14,506 anæsthesias there has been no death recorded. These results encourage further use and investigation of ether narcosis.

Küster of Marburg and Trendelenburg of Bonn, express themselves in favor of ether as an anæsthetic.—*Müch. Med. Woch.*

*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

Exanthemata During the Puerperium.*

Among 144 obstetric cases by F. Ahlfield at Marburger Clinic between December, 1880 to April 1892, the author observed 14 cases of rash resembling scarlet fever or measles occurring during the puerperium. In one case it attacked a patient who had undergone abdominal section. The rash was present in two (2) cases on the 2nd, 3d and 4th day after delivery; once on the 5th, 6th, 7th and the 8th day. It appeared twice as late as the 10th day and once on the 15th day.

The time of eruption and fever corresponded to the usual appearance of puerperal affections. In several cases other puerperal symptoms were noticed immediately after the appearance of the rash. The author, however, regarded it more as a complication than a sequence.

He concludes that these questionable cases, have nothing, or little, to do with scarlet fever or measles proper, and is reinforced in this belief by Mannkopff, who failed to trace it back to any source of infection, and further that no others were attacked by the same disease.

The author concludes then to place these under the head of septic exanthemata, believing that it is due to a peculiar poisonous product, and asks the question, why should not, among the numerous micro organisms which are found in the lochia, certain ptomains be present, which would have peculiar property of producing these exanthema?—*Ztschr. f. Gebutsh. u. Gynal.* xxv, 1-92.

ABSTRACTS.

A PRELIMINARY COMMUNICATION CONCERNING THE ANTISEPTIC VALUE OF PHENOCOLL HYDROCHLORIDE.

Carl Beck, in the *New York Medical Journal* April 22, 1893, writes: Bearing in mind the derivation of the well-known drugs—acetanilide, phenacetine, and phenocoll—it ought to appear natural, from a theoretical standpoint, that these descendants of a typical antiseptic should have preserved their characteristic germicidal qualities. Led by this consideration, I determined last summer to examine these drugs in reference to their antiseptic value from a practical standpoint by applying them on all kinds of wounds and ulcers in the shape of powders, solutions, ointments and gauzes in private practice, as well as at St. Mark's Hospital and the German Poliklinik, with the assistance of Dr. Stiebeling, Dr. Heyman and Dr. Handel.

My experiments have shown that all the drugs mentioned above possess a well-marked antiseptic power.

Acetanilide keeps a fresh, clean, or well granulating wound in a good condition, but is of little influence upon infected wounds or upon ulcers. It does not seem to produce irritation or eczema, and may rank the same as boric acid. (Experience of seven cases.)

Phenacetine is undoubtedly more powerful, and not only keeps fresh or well granulating wounds in a good state, but improves their appearance. A ten per cent. gauze did not have any odor three days after it had been taken away from an ulcer of the leg. Poisonous effects, irritation or eczema were never noticed. So far as its antiseptic value is concerned, it appears to me that it takes its place between boric acid and iodol. (Experience of thirteen cases.)

But I soon found that phenocoll far surpassed both, wherefore, for the last three months, I have experimented with this only, in the form of—

1. Pure powder.
2. Five per cent. watery solution.
3. Ten and fifteen per cent. Alcoholic solution.
4. Ten and twenty per cent. gauze.
5. Ten and twenty per cent. ointment (vaseline and anolin).

Originally I only used the powder by dusting it over the wound surface and covering the same with sterilized gauze or moss. It was employed in lacerated

*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

wounds (five cases), suppurating glands of the neck (three cases), bubo inguinalis (two cases), badly granulating ulcers of the leg (two cases), suppurative mastitis (one case), amputation of three toes (one case), burn of the second degree, embracing the dorsal surface of the foot and anterior part of the leg (one case).

All these sores had been granulating well, and, with the exception of one amputation case, are cured to-day.

No irritation of the integument or any general symptoms which could be referred to the action of the drug were observed. When I found that I could do just as well with the ten per cent. gauze, I dropped the powder and for the last two months, with few exceptions, have used the gauze only.

The same good effects were obtained by covering the granulating surfaces with a thin layer of the gauze, which was protected, as a rule, by a piece of sterilized moss. The dressings were usually changed every third day, as the secretion was scanty. The cases thus treated were:

Lacerated wounds caused by knives, pieces of glass, splinters of wood, or other injury (fourteen cases); extirpation of tubercular glands of the neck (packing the cavity with the gauze—eight cases); furuncle of the neck (crucial incision—two cases); caries sterni (chiselling and packing—one case); suppurative mastitis (broad incisions and packing—five cases); partial resection of a tubercular elbow joint (packing—one case); panaritium (eleven cases); amputation of the finger (gangrene after bathing in pure carbolic acid —open treatment and packing); bubo inguinalis (extirpation of glands—four cases); resection of tubercular hip joint (partial union, cavity packed—three cases); total resection of tubercular ankle joint (two cases); resection of astragalus for extreme equino-varus (failure of union by first intention, open treatment thereafter); amputation of the big toe for caries (open treatment); amputation of three toes for caries (previously treated with powder); phlegmon of different parts of the body (free incision, scraping and packing—seventeen cases); ulcers of the leg; necrosed surface scraped first, then a thin layer of phenocoll gauze and tight dressing applied over it—three cases).

All these cases are either cured at the present time or are in an entirely satisfactory condition, The healing process does not differ from that observed during the use of iodoform. Every patient's urine was examined repeatedly without anything abnormal being detected, and no irritation took place. Two cases—viz., one amputation of three toes and one phlegmon of hand, mentioned above—had formerly been treated by iodoform and had extensive eczema, while phenocoll did not irritate at all.

The five per cent. watery solution was successfully applied as a wet application in one case of dermatitis and in one case of erysipelas(arising from a lacerated wound on the anterior part of the leg). The same solution was used with apparent success in three cases of recent gonorrhœa and four cases of leucorrhœa.

The ten per cent. alcoholic solution was injected into the joints in two cases of coxitis and three cases of tubercular (?) inflammation of the ankle joint, without any irritation. So far as the final result is concerned I am still in doubt.

The same injection was made into a carcinoma mammæ (relapse in and around the scar after amputation a year ago), and it has undoubtedly produced a decrease of size and painfulness in the cancerous tissue, so that further investigations seem certainly indicated.

The injection of a watery, and especially of an alcoholic solution was always followed by a slight burning sensation, which never lasted longer than about a minute.

The twenty per cent. ointment (preferably made with lanolin) was used in one case of ulcer of the leg and two cases of burns of the second degree. The granulations were of a good character, but the healing process seemed to take longer than it did under the use of the gauze.

So far it seems to be evident, from my experiments, that phenocoll hydrochloride is probably as valuable an antiseptic as iodoform, and stronger than dermatol, aristol, iodol, pyoctanin, europhen, etc.

Furthermore, it probably surpasses iodoform because: 1, it is odorless; 2, it dissolves easily; 3, it does not produce eczema; 4, it is not contraindicated in kidney disease; 5, on account of its non-poisonous effects it can be applied to very extended surfaces.

As a very small amount of the drug fulfills its purpose, the expense is small.

THE LIBRARY TABLE.

Diseases of the Skin, by Charles C. Ransom, M. D., Assistant Dermatologist, Vanderbilt Clinic, New York. The students' Quiz Series; Philadelphia: Lea Bros. & Co., $1.00

This volume, like the others of the series, is arranged in the form of question and answer. Several wood cuts illustrate, as well as uncolored illustrations can, the prominent features of some of the rarer forms of skin eruption. An appendix gives many useful formulæ for the treatment of skin affections. The volume is fully up to the excellent standard of those which have preceded it and very well fulfills the purpose for which it is intended—a remembrancer for the student and busy general practitioner.

Medical Pocket-Atlases—Obstetrics. Part I, Labor; by O. Schæffer, M. D., Assistant at the University Frauln-klinik in Munich. Translated and published under the supervision of J. Clifton Edgar, M. D., Adjunct-professor of Obstetrics in the University of the City of New York, etc. New York: L. Hydel.

By means of a series of 98 colored plates, the student is conducted through the different stages of labor; the positions of the fœtus in the various presentations, normal and abnormal, shown, and the steps of the operations of turning and the application of the forceps clearly pointed out. The explanatory text is concise and plain and the book puts a series of plates into the student's hand that cannot fail to be of great service to him and the moderate cost of which serves to enhance its value. The volume is of such a size as to be readily carried in the pocket. Other similar atlases on the subjects of pregnancy and gynecology are in preparation. The imparting of knowledge by means of pictures may be a reversion to primitive methods, but the information thus gained is likely to take a deeper hold on the student's mind and makes a more lasting impression than many pages of dry description. The authors and the publisher are to be congratulated on their work and we look with interest for the other volume of the series.

BOOK REVIEWS.

Handbook of Hygiene and Sanitary Science, by George Wilson, M. A., M. D., F. R. S. Edin.; pp. 751. Philadelphia: P. Blakiston, Son & Co., 1892. Price $3.25.

This is an instructive work, notwithstanding its localism, applicable more to Great Britain than to America, and its attempt to technique without sufficient data to aid the general practitioner of medicine and at the same time falling short of being in the least instructive to the specialist. For instance on page 240, section III., Microscopical and Biological Examination in Water Analysis, he says: "A ready method is to take a measured quantity of the water, say .5 or 1 c. c., mix this in a test-tube with nutrient gelatine, and pour over a glass plate, which should be placed under a bell-jar with suitable precautions to exclude the entrance of atmospheric impurities. After a few days the micro-organisms or spores develop into colonies which may be differentiated as bacteri, moulds, fungi, etc., while subcultures of these colonies may be made if deemed desirable."

Owing to the rapid strides in this branch of science and the growing appreciation by the medical profession of the necessity of higher education in Preventive medicine a new edition of Wilson's Manual of Hygiene has long been demanded. The work is broad and comprehensive, on the etiology of the disease, particularly in relation to the germ theory on the functions and constituents of food stuffs, dietaries, diseases which render the flesh of animals unfit for food, air and its impurities, impure water and its effects on public health making it together with its interesting biblography one of the most valuable Handbooks of Hygiene and Sanitary Science for the general practitioner of the present day.

A Pharmacopœia for Diseases of the Skin, by James Startin. Third Edition. London: H. K. Lewis, 136 Gower Street, W. C., 1892.

This little book contains a concise formulæ; baths; rules of diet; classification and therapeutical index; giving various medicines and drugs commonly used in the treatment of skin eruptions. That this little book should have reached its third edition is ample proof of its appreciation not only by the student but the medical practitioner as well. It will be found of greatest assistance to Medical Practitioners engaged in active practice; as diseases of the skin, more than any other human maladies, are under the patients' observation, so as to enable him to detect an error and judge of his own progress, and perhaps no branch of medical education is more appreciated by the sufferer or more useful to the medical practitioner.

CURRENT LITERATURE REVIEWED.

THE MONTREAL MEDICAL JOURNAL

For May contains a discussion on tuberculosis in its various relations.

D. McEachran, F. R. C. S., V. S. Edin., D. V. S., contributes a paper on

The Inter-communicability of Tuberculosis from Animals to Man and from Man to Animals.

After reviewing the work of the various investigators of the subject, the author comes to the following conclusions: (*a*) Tuberculo-

sis is an infectious, fatal and incurable disease. (*b*) It is communicable from man to animals, and has been communicated by inoculation, by ingestion and by inhalation in the dried form of the sputum of consumptive persons, as well as from the tubercular matter itself, to cattle and to man himself. (*c*) Tuberculosis in man is identical with tuberculosis in the bovine and other domestic animals, is due to a slender rod-shaped bacillus, which gaining entrance to the circulation by means of milk, flesh, sputum moist or dry, work their destructive operations in various tissues of the body, not in the lungs only, as is often supposed, but in the serous membranes, pleura, peritoneum, thoracic and abdominal glands, or superficial glands of the body, especially the udder, testicles, thyroid, parotid and other glands, and not unfrequently in the subcutaneous tissues in various parts of the body, in the meninges of the brain and spinal cord, and in the human subject, frequently in the intestinal tract, and in many cases in animals it affects the articulations.

The author knows of no country where cattle are domesticated in which tuberculosis does not exist. Statistics go clearly to show that it is on the increase. The manner of the spread of the disease among cattle is as follows: A tuberculous animal, bull or cow, is introduced to the herd, the bacillæ are coughed up, provided the lungs be the seat of the tubercular formations. The sputum may mix with the food in the trough in front of the adjoining animal and thus be swallowed; it may dry on the hay, feed-box or boards to be inhaled; in the former case it may develop messenteric tuberculosis, in the latter pneumonic or thoracic. It may be, if a cow, that other calves besides her own are fed on her milk, which containing the tubercular bacillæ, they become infected. If a bull, he may in the act of coition transfer the bacilli to the cow. No more frequent source of extensive spreading of the disease exists than tuberculous bulls. The calf is sometimes born tuberculous. He has seen cases where the placental membranes were studded with grape-like tubercles.

It is generally said to be hereditary—it is, but more frequently the calf contracts the disease from its tuberculous mother's milk or coughed up bacillæ. It is generally supposed that the milk will not communicate the disease to the calf if the udder is not tuberculous. This is an erroneous and a dangerous doctrine, and in connection with the communication of the disease by means of milk to mankind should be strongly rejected.

The author looks for much good to result from the use of tuberculin as an aid to diagnosis in doubtful cases. The manner in which the disease extends to man through milk also receives careful attention from the author. He especially warns the profession against the commonly received doctrine that milk is free from harm unless the udder be tuberculous.

Dr. J. G. Adami discusses the subject of

The Communicability of Tuberculosis from Man to Man,

quoting the results of various researches in this direction. Especially striking are those of Cornet among the sisterhoods in Germany to whose lot the nursing of the sick in the hospitals falls.

Taking thirty-eight of these nursing corporations he found that, during the last 25 years, of their total mortality 62.8 per cent., or almost two-thirds, was recorded as being from tuberculosis, while of those members of the corporations dying between the ages of twenty-five and thirty-five no less than 73 per cent. had succumbed to this disease, in place of a little over 40 per cent. in the general population. Or, to put the matter in another light, a German nurse, member of one of these sisterhoods, *has at twenty-five the same expectation of life as a woman at fifty-eight in the general population.*

If, as Ransome has proved, the breath of a phthisical patient contains the bacilli, *a fortiori* are the bacilli present in large quantities in the sputum, and it is this sputum that must be rigorously disinfected. Not only must this be collected in special utensils and then disinfected and the utensils rendered sterile by boiling daily (or, as some advise, be made of such materials that they can only be employed one day and then be cast into the fire), but the handkerchiefs and bed linen must be washed apart and well disinfected, the habit of promiscuous expectoration must be stopped sternly, and when a patient has died or has left a room then the walls and floor of that room must undergo thorough disinfection.

All these precautions are absolutely necessary, and it is our duty to publish them widely abroad, if the spread of tuberculosis is to be averted. The fact so often noticed of the husband of a tubercular wife contracting the disease is also quoted by the author in support of his opinions. The fact of intestinal tuberculosis occurring most frequently in the young whose principal article of food is milk is spoken of as showing the infectious nature of the milk from diseased cows.

The milk he believes to be more infectious than the flesh.

Dr. William S. Morrow contributes a paper on

Masked Tuberculosis,

reporting cases in which the insidious nature of the disease was clearly marked. Koch's lymph, he thinks, may yet have a recognized place in the diagnosis if not in the treatment of tuberculosis. As an aid to diagnosis he regards as of great value the cherry red color given by Ehrlich's diazzo solution with certain specimens of urine. He has found this reaction in the urine of miliary tuberculosis, pulmonary phthisis, tubercular cystitis and tubercular peritonitis. It is usually present where absorption of tuberculous products is going on to any extent; and although the diseases in which it may be found are not yet completely worked out, there are certainly not many in which it is so typical as in tuberculosis and typhoid; and he believes we may often get valuable information by the employment of the test in these diseases.

Dr. F. H. Wetmore reports a "Case of Acute Circumscribed Hemiglossitis, with Suppuration." This number concludes with

the address to the Graduates of McGill University delivered by Dr. A. D. Blackader.

THE ANNALS OF GYNECOLOGY AND PÆDIATRY

For May contains a paper by Dr. Howard A. Kelly entitled

My Recent Ureteral Work.

After dwelling on the close relation between disease of the ureters and other pelvic conditions with which the gynecologist has to deal, the author minutely describes the anatomical relations of the structures under consideration and then proceeds to the subject of palpation of the ureters. In regard to this he says: "The ureter can be palpated through the anterior vaginal wall from its terminus in the bladder up to the point where it passes beneath the broad ligament. It is rolled in the loose cellular tissue under the index finger, or often better bi-manually under two fingers, or in advanced pregnancy on the head of the child like a narrow tape or flattened cord, without hardness. It must not be mistaken in this position for the obturator artery or nerve, or the upper border of the levator ani, or fibres of the obturator muscle, or the rim of the foramen. A diseased ureter becomes nodular and thickened, and is peculiarly prone to be mistaken for a cellulitis or an adherent ovary." The author states that many cases treated for cystitis or irritable bladder are in reality suffering from disease of the ureters. An enlarged ureter can also be palpated per rectum behind the broad ligament, and followed up over the posterior pelvic wall. He has also found that "the normal ureter can be traced and minutely examined in the upper part of the pelvic course by introducing a ureteral catheter through the urethra and bladder into the ureter, and carrying it up to or over the brim of the pelvis." His landmark for the upper portion of the pelvic ureter is the internal iliac artery, which can easily be felt per rectum. He does not know of any satisfactory means of locating the abdominal portion of the ureters by surface landmarks. His own method is to "locate the promontory of the sacrum by pressure through the abdominal wall, and from this to locate the point at which the ureter enters the pelvis from three to three and a-half cm., outside of and a little below the promontory; by pressing deeply at this point, the fingers at once recognize pulsations of the common iliac artery, a sign that the correct spot has been found. A large ureter can be felt at this point through thin walls. The patient will always complain of a severe pain, and often a desire to urinate when a sensitive or inflamed ureter is touched." The advantages of catheterization, sounding and dilating the ureters is next dwelt upon, the author reporting several cases of carcinoma, hæmaturia, hydro-ureter, stricture of the ureter, pyelonephrosis, and enlarged spleen mistaken for kidney in which the above procedure was of use. He observes the following routine in catheterizing: "First all the urine in the bladder is drawn off and put to one side, then the bladder is distended with a methyl-blue solution. It is now evident that if the catheter enters the ureter in the catheterization and clear urine is discharged by the catheter it does not come from the bladder. There is one possible source of error—when the lower part of the ureter is so distended that the water from the bladder backs up into it and so escapes through the catheter; this will be obviated by carrying the catheter still higher up." "The usual method of using the catheter is the one followed by Pawlik, by retracting the posterior vaginal wall and introducing the ureteral catheter into the bladder, and turning its point forward and trying to introduce it by observing the play of the point of the catheter over the anterior wall, as it seeks the ureteral folds. The ureters lie a little above or to the upper part of this fold, one or two centimetres to the right and left of the median line." To estimate the amount of urine from each kidney the catheter is left in position for a definite number of minutes and all the urine passing is caught in a minim glass. From this quantity, added to the amount retained in the catheter, the total amount for twenty-four hours can be readily calculated. The article is illustrated by half tone pictures and wood cuts of the anatomy of the parts and the instruments used.

Dr. Gebhard contributes a "Report on the Progress of Gynecology and Obstetrics in Germany." The paper includes a description of the operation of symphysiotomy and the recent bacteriological observations on the gonococcus in its casual relation to pelvic inflammations.

Dr. J. M. Baldy contributes a paper on "Complications Following Abdominal Section," reporting two cases that died of pneumonia immediately following the section. Another patient had uremia but recovered.

Dr. Carl Crisand discusses the subject of

Dilatation of the Cervix Uteri for Dysmenorrhœa and Sterility,

and quotes the opinions of gynecologists for and against the operation. He thinks that, while the operation has been much abused, it should take its place among the various methods of treating dysmenorrhœa and sterility. The cases should be carefully selected. Unless there is a flexion of the uterus, or a small cervical canal the procedure is useless. Although he prefers rapid dilatation under ether, he had had good results from gradual dilatation once or twice a week for three or four weeks; waiting for the patient to pass the menstrual period and then going on till the next period. The operation should be performed under the strictest antiseptic precautions and it is equally imperative that the patient have perfect rest in bed, and one menstrual period passed through while in bed. We should make sure of the sufficient dilatation of the internal os, even to the extent of rupturing some of the fibres which run around this section of the uterus in a circular manner. The wearing of a glass stem pessary for several months afterwards is also advised.

Dr. S. M. Hogan reports a "Fibroid Tu

mor of the Uterus; Rupture about the Fourth Month; Operation; Post-mortem; Specimen;" which has already been given in THE MEDICAL AND SURGICAL REPORTER for December 3rd, 1892, page 889, in the report of the proceedings of the Southern Surgical and Gynecological Association.

Dr. H. B. Stedman reports a case of "Atresia of the Cervix Uteri following Electrolysis." A sound was pushed through the exudate under antiseptic precautions and the retained secretions liberated. The patient recovered.

In the Department of Pædiatry, Dr. Henry W. Stelwagon contributes a paper on

Molluscum Contagiosum; Impetigo Contagiosa; Ichthyosis,

being the notes from ten years' service (4,131 cases) at the Philadelphia Dispensary for Skin Diseases. In regard to molluscum contagiosum he says, "many of the cases, in fact almost all, tended after a time to spontaneous recovery. In many a mild mercurial ointment, white precipitate ointment usually, vigorously rubbed in, was used; lesions in which there was a tendency to pedunculation were either snipped off or a ligature thrown around them; and in a few obstinate and large sized lesions a puncture, followed by a light cauterization with the stick of silver nitrate, or with carbolic acid applied by means of a pointed stick, was made. In ichthyosis, "the treatment which gave the greatest alleviation consisted of daily or triweekly plain warm or alkaline baths according to the severity of the case, with the supplimental use of a salicylated ointment, 2 to 5 per cent. strength. In two or three of the more severe cases a small quantity of precipitated sulphur, ten to thirty grains to the ounce, was added to the ointment. The most satisfactory ointment base was that made up of equal parts of lanoline, vaselin and lard." As to impetigo contagiosa, "although the disease usually ran an acute course of one or two weeks, disappearing spontaneously, making it difficult to measure the effect of medication, yet it may be stated that treatment had a positive influence. That which gave satisfactory results was either an ointment of white precipitate, ten to twenty grains to the ounce, or a similar ointment containing five to ten grains each of the white and red precipitate to the ounce; it was well rubbed into the lesions, the crusts, if possible, having been first removed with washings of warm water and soap. In cases markedly itchy, and in which, therefore, excoriations were produced, and the disease kept up by autoinoculation, in addition to the above application to the lesions themselves, a lotion of boric acid, with one-half to one and a-half drachms of carbolic acid to the pint, was applied to the parts generally.

PERISCOPE.

NEWS AND MISCELLANY.

National Association of Railway Surgeons—The Annual Meeting.

Following is the programme for the sixth annual meeting of the National Association of Railway Surgeons to be held at Omaha, Neb., commencing Wednesday, May 31, closing Friday, June 2, 1893:

Wednesday, May 31, 10 a.m.

Call to order by the chairman of the committee of arrangements.

Address of welcome; by John M. Thurston, Esq., general solicitor Union Pacific railroad, Omaha, Neb.

Response to the address of welcome; by Dr. George Chaffee, secretary New York Association Railway Surgeons, Brooklyn, N.Y.

Introduction of the president; by Dr. W. J. Galbraith, chief surgeon Union Pacific railroad, Omaha, Neb., chairman of the committee of arrangements.

Appointment of the committee on nominations by the president.

First report of the executive committee.

A report of a case of contusion of the back and abdomen, followed in five months with intestinal lesions; by Paul F. Eve, M.D., surgeon L. & N. R. R., Nashville, Tenn.

Discussion opened by Dr. George J. Northrop, chief surgeon, D. S. S. & A., Marquette, Mich.

Report of a case of fracture of the astragalus; by Robert Burns, surgeon Concord & Montreal, Craigie Burn Wood, Plymouth, N. H.

Discussion opened by Dr. S. L. McCurdy, surgeon P. C. C. & St. L. R. R., Dennison, Ohio.

Wednesday, May 31, 2 p. m.

Call to order. Reading of the minutes of the morning session.

Report of committee of arrangements.

Report of secretary.

PAPERS AND THEIR DISCUSSIONS--SPECIAL PROGRAMME

Injuries of the cord and its envelopes without fracture of the spine.

1. History; by Dr. George Ross, chief surgeon R. & D. R. R., Richmond, Va.

Discussion opened by Dr. J. H. Murphy, chief surgeon C. St. P. M. & O. R. R., St. Paul, Minn.

2. Anatomical landmarks; Dr. Jabez N. Jackson, surgeon Wabash R. R., Kansas City, Mo.

Discussion opened by Dr. J. B. Murdock, chief surgeon P. C. & St. L. R. R., Pittsburgh, Pa.

3. Physiology of the spinal cord; by Dr. A. P. Grinnell, chief surgeon Central Vermont R. R., Burlington-Vt.

Discussion opened by Dr. J. C. Hearne, surgeon S. C. R. R., San Diego, Cal.

Wednesday, May 31, 8 p. m.

SPECIAL PROGRAMME CONTINUED.

Injuries of the cord and its envelopes without fracture of the spine.

5. Experimental research; by Thomas H. Manley, surgeon Central Park E. & W. R. R., New York, N. Y.

Discussion opened by Dr. B. Merrill Rickets, chief surgeon C. P. & V. R. R., Cincinnati, Ohio.

5. An experimental study of spinal myletis and meningitis; by Dr. George A. Baxter, division surgeon Chattanooga Southern R R., Chattanooga, Tenn.

Discussion opened by Dr. Solon Marks, chief surgeon C. M. & St. P. R. R., Milwaukee, Wis.

Thursday, June 1, 9 a. m.

Call to order.

Reading of the minutes of last session.

Report of the committee of arrangements.

Report of treasurer.

Report of nominating committee.

Election of officers.

PAPERS AND THEIR DISCUSSIONS.

President's address; by Dr. C. W. P. Brock, chief surgeon C. & O. R. R., Richmond, Va.

The relation of the railroad surgeon to public and international hygiene; by Dr. R. W. Bruce Smith, surgeon G. T. R. R., Seaforth, Can.

Discussion opened by Dr. G. P. Conn, chief surgeon C. & M. R. R., Concord, N. H.

The National Association of Railway Surgeons—Not a trade union but a philanthropic and scientific organization; by Dr. E. R. Lewis, surgeon Wabash R. R., Kansas City, Mo.

Discussion opened by Dr. Wm. H. Elliot, chief surgeon Cent. R. R. of Georgia, Savannah, Ga.

Thursday, June 1, 2 p.m.

SPECIAL PROGRAMME CONTINUED.

Injuries of the cord and its envelopes without fracture of the spine.

6. The clinical aspect of spinal localization; by Dr. Nicholas Senn, surgeon C. St. P. & K. C. R. R., Chicago, Ill.

Discussion opened by Dr. E. G. Cochran, surgeon M. C. R. R., Topo Chico, Hot Springs, Mex.

7. Diagnosis from the standpoint of the neurologist: by Dr. C. H. Hughes, consulting surgeon Mo. Pac. R. R., St. Louis, Mo.

Discussion opened by Dr. A. I. Bouffleur, surgeon C. M. & St. P. R. R., Chicago, Ill.

8. Pathology and pathological anatomy; by Dr. Samuel C. Benedict, surgeon R. & D. R. R. Athens, Ga.

Discussion opened by Dr. J. B. Murphy, surgeon N. P. & W. C. R., Chicago, Ill.

Thursday, June 1, 8 p.m.

SPECIAL PROGRAMME CONTINUED.

Injuries of the cord and its envelopes without fracture of the spine.

9. Prognosis; by Dr. Alexander J. Mullin, division surgeon M. C. R. R., Michigan City, Ind.

Discussion opened by Dr. C. M. Daniel, surgeon N. Y. L. E. & W. R. R., Buffalo, N. Y.

10. Treatment; by Dr. W. B. Outten, chief surgeon Missouri Pacific R. R., St. Louis, Mo.

Discussion opened by Dr. W. R. Nugent, chief surgeon I. C. R. R., Oskaloosa, Iowa.

Friday, June 2, 9 a.m.

Call to order; Reading of the minutes of the previous session.

Report of the committee of arrangements.

Report of the committee on publication.

Second report of the executive committee.

Election of honorary members.

Miscellaneous business.

Amendments to the constitution.

PAPERS AND THEIR DISCUSSIONS.

A case of injury to the bladder and rectum; by Dr. D. S. Fairchild, division surgeon C. & N. W. R. R, Ames Iowa.

Discussion opened by D. A. H. Middelkamp, surgeon Wabash Western, Warrenton, Mo.

The grave importance of too early special treatment in most eye injuries; by Joseph A. White, A. M., M. D., ophthalmic surgeon of the C. & O. R. R., Richmond, Va.

Discussion opened by Dr. Adolph Alt, consulting oculist, Missouri Pacific R. R., St. Louis, Mo.

The responsibility of the surgeon in suits for damages, against railway companies; by Dr. C. M. Woodward, surgeon C. J. & M. R. R, Tecumseh, Mich.

Discussion opened by Dr. J. W. O'Connor, chief surgeon, D. & R. G. R. R., Denver, Colo.

Friday, June 2, 2 p.m.

SPECIAL PROGRAMME CONTINUED.

Injuries of the cord and its envelopes without fracture of the spine.

11. Medico-legal aspects; by judge J. H. Collins, chief counsel B. & O. R. R. west of the Ohio River, Columbus, Ohio.

Discussion opened by Mr. Clark Bell, editor Medico-Legal Journal and secretary of the International Medico-Legal congress, New York.

12. Statistics of the amount of money paid by the railways of the United States during the last ten years for alleged injuries of the spine; by Dr. F. K. Ainsworth, surgeon S. P. Rd, Los Angeles, Cal.

Discussion opened by Dr. Harvey Reed, surgeon B. & O. Rd, Mansfield, Ohio.

13. Clinical report.

1. From a medical aspect; (a) permanent injuries; (b) alleged injuries.

2. From a legal aspect; (a) settled with suit; (b) settled without suit; (c) miscellaneous; by Dr. George Chaffee, surgeon Long Island Rd, Brooklyn, N. Y.

Discussion opened by Hon. William E. Jones, general claim agent Mo. Pac. Rd, St. Louis, Mo.

General announcements regarding the excursions, with directions, etc., by the chairman of the committee of arrangements.

ARMY AND NAVY.

U. S. ARMY FROM MAY 14, 1893, TO MAY 20, 1893.

Promotion.—Medical Department.—Major Johnson V. D. Middleton, Surgeon, to be deputy Surgeon General with the rank of Lieutenant Colonel, May 8, 1893.

Casualty.—Lieutenant Colonel Ely McClellan, Deputy Surgeon General, died May 8, 1893, at Chicago, Illinois.

Appointments.—Medical Department.—To be Assistant Surgeons with the rank of 1st Lieutenant, May 12, 1892: Alexander N. Stark, of Virginia; Charles Lynch, of New York; John S. Kulp, of Pennsylvania; Edward L. Munson, of Connecticut; Charles E. B. Flagg, of South Carolina; James M. Kennedy, of South Carolina, Guy C. M. Godfrey, of Ohio; William F. Lewis, of North Carolina.

The leave of absence on Surgeons certificate of disability granted Captain William G. Spencer, Assistant Surgeon, U. S. Army, is extended four months on account of disability.

Captain James C. Worthington, Assistant Surgeon, ordered to report in person to Colonel Chas. T. Alexander, Assistant Surgeon Genl., president of the examining board, appointed to meet at New York City, N. Y., at such time as he may be required by the board for examination as to his fitness for promotion.

Leave of absence for one month on Surgeon's certificate of disability, is granted Major Samuel M. Horton, Surgeon, San Diego Barracks, Cal.

The World's Fair.

FINAL ARRANGEMENTS FOR THE SALE OF TICKETS VIA THE B. & O. R. R.

For the benefit of those desiring to attend the World's Fair the Baltimore & Ohio Railroad will sell Excursion tickets to Chicago and return, at all stations on its line, at low rates. Tickets will be on sale until November 1st, and will be valid for return journey until November 15th, 1893. They provide for a reduction of 20 per cent. below regular rates. These ticket will be valid only for continuous journey. Tickets at higher rates will be sold that will permit holders to stop over at Baltimore, Washington, or any other point, going and returning.

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THE MEDICAL AND SURGICAL REPORTER

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ORIGINAL ARTICLES.

J. Madison Taylor, M. D.
The Treatment of Gastro-Intestinal Catarrh in Children. 837

CLINICAL LECTURES.

Chas. G. Stockton, M. D.
Heart Strain, Prophylaxis and Treatment. . . . 844

COMMUNICATIONS.

T. Ridgway Barker, M. D.
The Advantages of Antiseptic Irrigation of the Parturient Canal Before and After Labor. . . 845

P. V. Hoover, M. D., Booneville, Ind.
Fracture of Scapula from Muscular Action. . . . 848

SOCIETY REPORTS.

The Clinical Society of Louisville. 849

CORRESPONDENCE.

Eleventh International Congress. 854

EDITORIAL

Furor—Operandi and Modern Listerianism. . . . 855
The New Medical Law in Pennsylvania. 856

TRANSLATIONS 859

ABSTRACTS 862

SELECTED FORMULÆ. 868

CURRENT LITERATURE REVIEWED 870

PERISCOPE

MEDICINE 873
SURGERY 874
ARMY AND NAVY. 874

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THE
MEDICAL AND SURGICAL
REPORTER.

No. 1892. PHILADELPHIA, JUNE 3, 1893. Vol. LXVIII—No. 22

ORIGINAL ARTICLES.

THE TREATMENT OF GASTRO-INTESTINAL CATARRH IN CHILDREN.*

J. MADISON TAYLOR, M. D.†

Many authorities on children's diseases still retain the term "functional disturbances of digestion," including vomiting, simple diarrhœas, etc., and defining these as being without lesion. Others, again, as Louis Starr, regard all catarrhal states as practically involving a lesion, although a very transitory one and generally non-demonstrable post-mortem. In an extended experience in these disorders it has seemed to me wiser to regard them all as dependent upon the lesion of an active catarrhal process whether that be temporary or involves structural changes.

ACUTE GASTRIC CATARRH OR PERSISTENT VOMITING.

A very common disorder of infancy arising from irritative conditions of the stomach, or accompanying manifestations of acute disease, such as the exanthemata. The most common cause is unsuitable food whether due to some disturbances of the mother's milk—in which case it is necessary to regard the mother as the avenue of treatment—or, in hand-fed children, to any of the numberless opportunities for causing damage which arise in the preparation of artificial food.

The *symptoms* are chiefly those of discomfort, listlessness, lack of appetite soon followed by vomiting of fermenting substances, curdled milk or whatever the stomach may contain of food residue along with mucus. There is likely to be some fever, an acceleration of the pulse, tenderness over the epigastrium, and all these symptoms may last for thirty-six or forty-eight hours. In a vigorous child the whole episode often passes with a gush of loose fæces.

If it may be definitely ascertained that there is nothing behind all this the simplest treatment only is necessary to bring about a cure with the utmost promptitude. The essential indication is to neutralize the hyeracidity of the stomach, due to organic acids, and possibly the employment of a mild laxative. The important elements of treatment consist in thoroughly investigating the condition of the food supply—for example, the health of the mother and the quality of her milk and correcting whatever faulty conditions may prevail. Watch must be maintained if a specific trouble threaten. It is well to bear in mind that the specific fevers very rarely arise in a child under six months of age.

CHRONIC GASTRIC CATARRH, OR PERSISTENT OR RECURRING VOMITING.

Here there is a distinct hyperæmia of the gastric mucosa which membrane gradually becomes thickened and loosened, changing in color and voiding sticky mucus, or at times even some little mucopus. The gastric secretions are lessened,

*Read Before the Atlantic County Medical Society at Atlantic City, May 3rd, 1893.

†Professor Diseases of Children, Philadelphia Polyclinic, Assistant Physician Children's Hospital and to the Infirmary for Nervous Diseases, etc.

certainly in efficiency, and considerable depression of health obtains. The largest number of cases arise between four and seven months, coinciding with, if not dependent upon, the development of the first teeth.

The causes responsible are whatever influences lower vitality—poor hygiene, early weaning, or, above all, bad hand-feeding. As a matter of fact, the mother who is capable of nursing a child is a very rare animal, not only because of incapacity to secrete a wholesome quality of milk or maintain this for any length of time, but especially in that the modern mother, unless under most exceptional circumstances, is subject to numberless disturbing causes—physical and particularly emotional—and many the result of necessity such as over-fatigue from laborious occupations. Any of these, or more likely all together, soon inhibits the average mother, in the upper classes even more than in the lower, from maintaining a suitable food supply for her offspring. I have several times seen children die in a very few hours from profound disturbance of a mother's emotions.

Next we have to deal with poor milk even though it be good originally. Milk is subject to such an array of deteriorating influences that it is most dificult to place it before the little consumer in anything like a respectable condition. As to how milk should be cared for from the beginning I will speak further on. The bottle-fed infant must, above all things, have the bottles kept absolutely clean. Nor is this so difficult a matter if certain very simple rules are clearly laid down by the physician. My directions to mothers at the Dispensary of the Children's Hospital and at the Polyclinic Hospital, where the service is a large one, are usually printed and handed to them, and are as follows: There should be in use at least three bottles and a half dozen short rubber nipples; a common kitchen bowl filled with a solution of bicarbonate of soda in boiled water. One bottle should be in use; another standing near the fire filled with the soda solution and a third bottle drying in a sunny place. The extra nipple should be floating about in the soda solution. These to be used in constant rotation, cleaned out each time, rinsed with the alkaline wash and treated as described. The long flexible tube has happily been almost banished from every civilized community.

In children under eight months, no farinaceous foods are suitable, not even the digested starches; only the animal foods are safe for such young infants—either milk in some form, or broths. It should be known to every mother that children are incapable of digesting starch foods until nearly a year old, but, alas, many medical men fail to bear this sufficiently in mind.

The dangers of the subacute catarrhal state of the stomach in infants are very great, not only from death from exhaustion, but from the profound depression of vitality, leaving them fertile ground in which the seeds of disease may flourish.

The treatment depends almost entirely upon the regeneration of the food conditions. A thorough investigation of the quality of the milk when it comes to the house, strict inquiry into the vessels which contain that milk after it has been received, complete isolation of this from any filthy odors or volatile principles which may contaminate this very sensitive fiuid and, finally, such treatment of the milk as the condition demands.

Treatment of the milk may oftentimes, with advantage, consist of sterilization. Sterilization has been drummed into the heads of the medical people, and into the minds of the laity likewise, as being the greatest panacea and cure-all for every childish ailment—a preventive of all threatened diseases, even of tuberculosis. These great hopes have been by no manner of means fulfilled. Sterilization, or the bringing of milk up to a heat just short of boiling, thereby destroying contained germs and otherwise producing conditions which make the milk more readily accepted by an irritable stomach, is a very valuable measure, with this inevitable proviso: *Whenever the occasion for its use has passed by, let there be as speedily as possible a return to good cow's milk unchanged.* Sterilized milk will not maintain a child for any considerable period in the same degree of vigor, nor with proper increment of growth, as will normal milk. Indeed, as Professor Albert Leeds has recently pointed out, the varieties and numbers of bacteria in milk are far less than the public have grown to believe. Tuberculosis sometimes does insidiously reach the unsuspecting victim through

this avenue but rarely, very rarely. Other microbic dangers do exist in milk, but not nearly to such an extent as we medical men have been teaching or have been taught. The method of *Pasteurization*, or heating milk up to about 150° Fahrenheit, does nearly all that may be reasonably required, unless the milk supply is distinctly suspicious.

A good method of preparing the day's supply of milk is to take half a dozen stout pint bottles, thoroughly cleanse and fill them with the milk, and stopper them with absorbent cotton thrust into the nozzle. These are to be placed in a pan of water and the water brought to a boil for about ten minutes. This drives objectionable gases from the milk and kills all ordinary forms of bacteria. The cotton prevents the re-entrance, at least for a long time, of germs floating in the air. These bottles put upon the ice, furnish very respectably prepared rations for a child.

This milk diluted somewhat with boiling water for the very young, or not at all for those of nearly a year, guarded perhaps by a little alkali, as lime water, will do for a healthy infant. If the digestion be weak, or, as in the matter under consideration, markedly disturbed, other conditions may be maintained. Among the best of these, to my mind, is peptonization by the cold process as recommended by the Fairchild firm. Two grains of extract of pancreatine and five grains of bicarbonate of soda rubbed up with a tablespoonful of milk, then the proportionate amounts of milk and water added to fill a six ounce nursing bottle, and all this plunged in hot water until the milk be somewhat warmed, then slowly and cautiously administered about every two hours, will usually suffice.

It is a rule abundantly confirmed that fresh cow's milk is much better than any artificial preparation, but it is also a matter of experience that it is frequently impossible to get good, fresh, sound cow's milk and we are inevitably driven to the manufacturing chemists for an alternate.

Among these may be mentioned malted milk, which I have known to prove of very great service. A family of three children under my direction, in a place where good, fresh cow's milk could not be had, were brougbt up upon malted milk and water and nothing else, from birth until a year of age, and they are very vigorous well-developed children to-day.

Ordinary condensed milk contains a great excess of cane sugar, which readily undergoes acetic acid fermentation and should be avoided when possible, but even for this a good word must be said, because it is a matter of experience that many times, when driven to the use of this imperfect substance, children not thriving on what should have been a better food, do surprisingly well.

Again, while theories would seem to show it impossible, it is known that babies have been raised in fairly good shape, upon so contemptible a fluid as veal or chicken broth and survived to be a credit to their race.

Skin Conditions.—The bath is important, but in very young babies the medium need not always be water. For several years, while attending a considerable number of dispensary obstetric cases I pursued the plan of having all children bathed in clean sweet oil and not water, and the results were eminently satisfactory. Bath-chill was thus averted and the irritations caused by varying qualities of soap, etc., were spared the youngster and I believe that when this line is pursued, better results are had than by the use of soap and water.

My own children were treated thus until three months of age and the nurse admitted that the trouble was less than with water and stoutly averred that the children's skins were much better.

Clothing.—The normal clothing, at least the under-clothing, for an infant is wool or possibly silk, summer and winter. No other fabric is safe. The vicious habit of exposing little babies' legs to the sudden changes of our American climate cannot be too sweepingly condemned. Undoubtedly many children survive such maltreatment, but it can with equal certainty be demonstrated that this baring of the knees and arms invites surface chill which results in our American catarrhal stomach. Far worse, since maternal vanity is responsible for many tiny graves.

In this gastric catarrh there is usually a subnormal temperature in the late reaction from the feverishness which often arises, and in this condition of depressed vitality, where the heat-making power is less and where the accompanying leaky skin expedites the loss of body heat, chill

of the internal organs is almost inevitable. Thus, little increments of hyperæmia are caused in the internal organs which may seem trival but almost certainly do damage to the alimentary tract.

GASTRO-INTESTINAL CATARRH.

This condition prevails largely among children who have passed the first dentition, and may be divided into the lesser *Indigestion*—a disturbance which comes and goes—and the greater *Mucous Disease.*

A gastro-intestinal catarrh may arise in a robust child and, with little or no treatment, speedily subside. In children who are less resilient, or more locally susceptible, this becomes a fixed condition called originally by Eustace Smith, of London, by the excellent name *mucous disease*, and must receive special consideration.

To begin with *indigestion*, or gastro-intestinal catarrh. The causes are many: unfavorable surroundings, deficient light and air, too little of out-door exercise and too much of school or in-door coddling, and along with the undoubted susceptibility which exists at the time of the eruption of the permanent teeth, injudicious food and insufficient clothing, all conspire to bring about a very common and troublesome malady of childhood. This disorder prevails less in summer than in winter because there the conditions of life of the average child are simpler and more wholesome. The out-door exercise, so needful for the young, keeps the blood upon the surface of the body and the circulation is more uniform. There are more reasons than can be enumerated here for the necessity of open air exercise in maintaining the ebb and flow of the vital activities.

The chief cause, however, of gastro-intestinal catarrh is coarse, indigestible food. This acts as an irritant upon the mucous surfaces which may already have suffered some depreciation due to these remoter causes depressing vitality enumerated above. An excess of mucus, which in itself is an active ferment, is poured out; hence arise fermentative processes and the resultant organic acids. These, along with masses of coarse food, irritate the intestine and a long train of disturbances result. An attack of vomiting and purging may arise which for the time being clears out both stomach and intestine. Unless the causes are removed and the food more carefully selected, it recurs again and again. The mass of mucus mechanically interferes with the absorption of the digested material, the blood is insufficiently replenished and hence the organic activities are lowered and the gastric and intestinal juices deteriorate. Thus is there direct and indirect reaction.

Extension of the catarrhal processes from the air passages is frequently an avenue of mischief, and I have often seen children and adults as well, in whom an acute attack of vomiting and purging would follow cold in the nose. Sufferers from this trouble become spare, flabby and pale, with a leaky skin, rough and inelastic to touch; a weak pulse, with irritable heart; tongue marked by the teeth, literally "indented;" the tonsils are likely to become hypertrophied; the sluggishness in secretions causes vitiation, and hence arises the mawkish odor of the breath; the cervical glands are enlarged; the belly becomes prominent or depressed alternately, a certain amount of pain occurs along the track of the colon, especially where sharp turns are made, as in the right and left hypochondrium; rumbling of gas in the intestines, and a generally variable and capricious appetite.

MUCOUS DISEASE, OR CHRONIC GASTRO-INTESTINAL CATARRH.

A troublesome disturbance of digestion which arises after the first dentition. *Mucous disease*, is to my mind an excellent name for a condition extremely prevalent among American children. Many times not recognized, it is a fertile source of serious mischief.

The lesions are similar to those of *indigestion* but much more severe and extensive. It is usually seen between three or four and twelve years of age—during the establishment and completion of the second dentition. Starr points out that it is especially the resultant of whooping-cough. While there is a considerable number of scoffers, and among them, too, some able men, who love to insist that "teething" produces nothing but teeth, undoubtedly there is a profound disturbance of nervous balance during this period, at least when the eruption of a tooth or teeth, is imminent. The hyperæmia of dentition seems to be reflected throughout the length of the alimentary

canal. Certainly *something* produces increased secretory activity and greater susceptibility to irritants.

The causes enumerated under *indigestion* also obtain here.

The symptoms are those of indigestion magnified and persistent. A steady emaciation prevails; the muscles fall into a condition of pitiable weakness; curious vaso-motor conditions occur; pallor, occasionally varied, especially in the afternoons and under conditions of excitement, by circumscribed flushing of one or both cheeks is noticed; along with this there may be pallor of the lips; this pallor may alternate with cyanosis, until the child looks as if it might faint at any moment, indeed, a very little excitement or fatigue will cause it to do so; the skin is usually sallow, leaky, and flabby to the touch; in places a mild pityriasis occurs and little branny scales fall from the surface; the hair grows lustreless, and in vivid contrast to itself in health; the oral mucous membrane is seen to be pale; the tongue presents a peculiar and pathognomonic variation known as the "glazed tongue;" —the organ is seen to be flabby, "indented" by the teeth, a furry coating over most of the surface except the edges and tip which are reddened, and in the middle an ovoid patch of glistening surface which looks as if it had been shaved. Here and there about the surface fungiform papillæ, brightly reddened, show strongly through. At times, especially after a stormy period of vomiting and purging, a second appearance comes upon the tongue, which is known by the name of the "worm-eaten appearance." Here the organ is not so flabby, is more of its normal shape, the furring not so extensive, but more uniform and thicker, and the characteristic worm-eaten appearance is an irregulrr denudation here and there about the surface just like an old, worm-eaten bit of wood, the surface of which is bright red with sharp-cut edges where the coating outlines it.

Curious mental states often prevail during this disorder; exceeding capriciousness of temper, for which the child may be unwisely punished; morbid cravings; absurd fancies which take the color of the child's temperament, with such variations as its accidental training may cause. A characteristic point also is the tympanitic belly which is almost constant about an hour or two after food; and now and then in the early morning an umbilical colic. Constipation is the rule, and when this is overcome, is very likely to alternate with painful tenesmus.

The nights are periods of horror with unrestful sleep, terrifying dreams, sometimes actual walking expeditions which, in fact, are rarely causeless. The urine may be passed unconsciously. Again, grinding of the teeth at night and the picking of the nose by day, produce a picture which old women gravely insist is due to but one lubricoidal cause. As a matter of fact, worms are rare nowadays, at least in my experience, much more so than formerly. I can distinctly recall the time when it was a common thing to dislodge ascarides, but now it is less frequent although suitable remedies may be applied as tests.

The temperature is rarely disturbed. It may, however, be a little high, especially after undue fatigue, and is, in a certain sense, an index or nerve tire. Another characteristic point is a prevalent irritative cough quite independent of any pulmonary involvement.

Treatment.—The treatment is much the same as that of indigestion, except that in indigestion the results are soon obtained, whereas in mucous disease it is imperative to regulate the entire environment and conduct of the child for a much longer period, even for months. The indications are to stop the fermentation of the food, and to give this in regulated amounts and at definite intervals. No starch foods should be taken, except carefully guarded bread. Fresh bread is indigestible because of the continued activity of the ferment. After some hours this ceases to be. Also the subjecting of bread to a second heating kills this ferment and makes it more wholesome. Therefore, a re-heating does nearly as much as toasting without the objectionable effect which toast has upon the bowels. The hours for feeding had best be systematized thus: Breakfast at seven, a light meal or "tiffin" at eleven, dinner at half past two and a light supper again at seven. The food should consist of milk either guarded with a little lime water, or peptonized by the cold process; broiled meats, beef and mutton and rarely a little chicken; soups well-freed from fat; oysters occasionally; purees of clams, oysters, or fish. The green

vegetables well cooked—such as asparagus, spinach, stewed celery, cauliflower tops with every other day a soft boiled egg for breakfast, or an egg boiled very hard and the yolk spread on bread are suitable. Butter is best omitted, but an excellent substitute is the yolk of a lightly boiled or poached egg spread on bread. It is well to make such variety as is possible by using different kinds of bread,—rusk, rasped rolls, etc. The meats should be well selected, tender, and the fat carefully removed. As the child improves, stewed dried fruit with very little sugar, or a baked apple may vary the monotony, but the best dessert is the innocent preparation known as junket—milk curdled with rennett, calves' foot jelly, or possibly a plain rice pudding.

The clothing should be very carefully inspected—a flannel band about the abdomen to begin with, and *always* wool next to the skin. The outer clothes may be light, especially in warm weather, but the surface of the skin must be protected by a thorough non-conductor, always wool or possibly silk. The skin must be kept in good condition by bathing. In this it is well to use, rather than soap, salt, which is amply cleansing and more stimulating. A second treatment of the skin should be had after the mid-day exercise, in the shape of a rubbing down with a coarse towel, or what is extremely good, a salt towel. This consists of an ordinary crash towel dipped in a strong salt solution and dried. Exercise is important to regulate carefully. Where the child is very weak this should be at first altogether passive by means of massage, either professionally done or at the hands of an ordinary nurse who could easily be taught the simpler movements. Later small increments of exercise may be prescribed, such as are had through the Sweedish remedial movements, and, as strength increases, out-door movement in the form of driving interspersed with short walks. After exercise of all kinds a brief period of absolute rest must be observed—a quarter or a half hour at least. Exercise tends to keep the blood upon the surface and to excite a more active ebb and flow. It also stimulates digestion and works many other advantages, provided always it be judiciously regulated and even supplemented by ample rest.

The medicines are of less importance. The first indication is to check the output of mucus, the next to neutralize the acids and prevent their formation. The alkalies are useful here, producing several effects, partly sedative and partly aiding to dissolve the mucous mass. Next comes the restoration of the irritable mucous membrane and to bring back the normality of secretion. Here aids to digestion and digestive ferments can be combined. Finally, the bowels need careful regulation. In my dispensary work we use two or three simple prescriptions which seem to be entirely efficacious. The first of these is bicarbonate of soda and infusion of gentian. Curiously enough, children object very little to this nauseous dose and administered before meals it is wonderfully effective. If great objection prevails, a drop of nux vomica to five drops of glycerine, along with the bicarbonate of soda, is better taken. Syrups are to be avoided, and yet the following mixture also has a valuable function. Bicarbonate of soda, nux vomica, spiced syrup of rhubarb and water, make an excellent combination, taken before the three principal meals. The clearing of the bowels, where this is needed, is best done with castor oil, although if the activity of the liver is manifestly impaired, a little calomel may be used with advantage, or the tasteless phosphate of soda, or, again, chloride of ammonium persistently used. To restore intestinal tone, and keep the bowels regularly moving, either myrrh alone, or tincture of myrrh and aloes, serves a useful part. I usually tell my students that the most important agent in treating these disorders of the digestion is a pencil and a good sized sheet of paper. For thus can one write out at length the conduct of the child for the entire twenty-four hours, specifying the hour for medicine, for food and for exercise, the time of bathing, the length of the exercise and the rest, making clear that these shall not be unduly near the feeding time, outlining exactly what foods may be taken and what avoided, and thus alone can the best results be had. I might speak of endless drugs which have, no doubt, their uses, but I think it would be of questionable value.

I close this summary with a few remarks on the preparation of foods for children.

First, of mother's milk. I wish I

could believe that mother's milk was the best food for a baby. It ought to be but it is not. By this I mean that it so rarely happens that a mother is both a good mother and a first-rate cow, that one stands among the rarities. In the lower walks of life the mother has not only large drains upon her through unavoidable physical labor, but has responsibilities, in the bearing of which variations arise which reflect themselves upon her milk. If she content herself with simply being the mother and caring only for the baby, as in the case of a well-paid wet nurse, that would be quite a different matter. A wet nurse is able to be many times better than a mother. The mothers of the upper walks of life have also many drains upon them, chiefly emotional, and they, too, fail many times, but not necessarily oftener than the poorer ones, although the contrary notion prevails. The wet nurse, theoretically the best supply of food for a baby, is seldom much better than is careful hand-feeding. So, when all is said and done, thoroughly careful hand-feeding is about the safest and most reliable.

When the milk of an animal is the aliment, much care is needed from the time it is removed from the cow until it is used by the child. Two or three practical points may not be amiss. Milk from a healthy cow may be used instantly it is drawn or else not until it has been subjected to a primary chill. It contains certain volatile principles which, if not removed, are partly poisonous. After being drawn, milk should instantly be placed in a temperature of 60 or 65 degrees, in a clean atmosphere free from all objectionable odors, and there allowed to remain until quite cool. Thus are the gaseous principles expelled from it and in other ways it is rendered more wholesome. When received by the consumer, it should be put carefully in an hermetically sealed vessel and in a cool place, not necessarily the refrigerator, which usually contains butcher's meat or other materials which may give forth offensive smells, but kept apart by itself, if merely placed in the shade where a good draft blows, and it is cool as in an ordinary cellar. In very hot weather it is well at times to employ sterilization, but this should never be continued any length of time, because sterilized milk does not maintain the health, nor is it competent to form the best of muscle and other structures. Under conditions of stress, pasteurization is usually sufficient.

Variety. No matter how judiciously a child with weak digestion be fed and how admirably the regimen outlined seems adapted to his needs there comes a time when he needs change and variety. As the changes in the digestive capacity grow rapidly in the earliest years, care must be exercised to liberalize the dietary consistent with the constitutional demands. A typical illustration of this came under my notice at Bar Harbor last summer. The child, aged three years, of a gentleman who was himself a patient of mine had been ill and was carefully directed by a physician of the highest ability to live on a prescribed diet and throve abundantly. This was continued for many months with unvarying regularity. After a time for no discernable cause the boy failed, grew irritable, seemed weak, easily tired; began to void uric scid, the skin grew flabby and leaky. The change of air had done nothing for him and the parents were in despair. A careful search into the matter revealed the wretched lameness of a diet suitable to a child of a year younger and consisted of milk, soups an egg alternate days and zweibach; varied only with junket and rice pudding. In the face of the morbid fears I enlarged this by the addition of a few green vegetables, roast and broiled meat once daily, a little fish and some stewed fruit and promptly the whole picture changed.

Palpitation.

Examination Physician of Insurance Company—What did your father die of?

"Palpidation ohf der heart."

Physician—Mother?

"Palpidation ohf der heart."

Physician—Two brothers?

"Palpidation ohf der heart."

Physician—What Caused it?

"Dhey each bought a lottery ticket and missed der big prize."

JUSTICE.—"Officer what is the prisoner charged with?" Officer Lafferty—"Well, your honor, I'm not a judge, but it smells to me a good deal like whiskey."—*Exchange.*

CLINICAL LECTURES.

HEART STRAIN, PROPHYLAXIS AND TREATMENT.*

CHAS. G. STOCKTON, M. D.†

In speaking of typhoid fever, I have told you that one of the most important matters to be borne in mind concerning convalescence is the condition of the heart. Many persons who recover from typhoid fever are hampered with weak hearts, and it is our duty always to examine carefully into this point and not to allow patients to return to work until we are certain that their hearts have regained fair strength.

This patient came early in January. His case was one of "walking typhoid"—probably in the third week. At the time of his admission to the hospital he had a temperature ranging between 103° and 105°, and continuing thereabouts for three weeks longer. Before his fever had disappeared his heart was found to be weak. It was stimulated with large doses of brandy, digitalis and strychnine, but, at certain times, it seemed impossible to keep it beating. In the latter part of February his pulse was 40 to the minute, very weak, intermittent and irregular. A little later the pulse fell to 35. For two weeks it ranged between 60 and 30, and at one time it fell to 18. The sounds were indistinct and it was almost impossible to feel the pulse at the wrist. It was only by the use of heat and friction to stimulate the capillary circulation and by the internal administration of liberal doses of heart stimulants that the patient was kept alive.

Under steady stimulation the pulse has been restored nearly to normal and is now beating at the rate of 60 or 75 to the minute, while the heart sounds are fairly good. This man, however, will have a weak heart for a year at the best, and, during that year, he should not be allowed to engage in hard work. If he does he will become one of the unfortunate individuals, and there are many such, who go through life with strained hearts.

Another patient, who comes to me from Pennsylvania, is a woodsman, engaged in lumbering and other forms of active exercise which should make him strong and vigorous. At the same time, however, he has overstrained his heart, and, as a result, it has not been able to fulfill the demand which the body has made upon it. In spite of tonics and general treatment which various physicians in Pennsylvania have given him, he has suffered from vague symptoms of weakness and discomfort without really knowing what was wrong with him.

On admission to the hospital, his heart was slow and weak, its first sound almost inaudible, and there was a general weakness without signs of other organic diseases. I put him to bed and have kept him there, allowing him to get up now only for the special occasion of appearing before you. He has had heart tonics, digitalis, strophanthus and, especially, strychnine.

If I could do for him exactly what I should like, he would be kept on his back for two or three months with faradism every day, with massage, friction and hot footbaths to bring the blood to the surface of the body and stimulate the capillary circulation. The same plan of treatment should be resorted to in this first case of convalescence from typhoid fever, if the heart does not return to its normal condition; for, although this heart has not been strained, it is weak following the cloudy swelling and fatty degeneration that so commonly occurs in severe infectious diseases.

Overwork, loss of sleep, long watching, grief, excitement, may bring about strain to a perfectly normal heart and after a long siege of typhoid fever, there is often harm done in allowing a man to go back to his routine work, which usually means the necessity of overdoing and of overstraining an already weak and susceptible organ.

*Delivered at the Buffalo Co. General Hospital.

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This third case is also one of convalescence from typhoid fever. The patient was admitted January 5, in the beginning of the disease. He was very ill and his temperature ranged from 105° to 106° in the evening, requiring antipyretic measures. His pulse varied from 130 to 140. Finally both temperature and pulse fell, the latter reaching 60, 50, 40 and even 30 to the minute. His heart was sustained when not too infrequent by digitalis and strophanthus and when it became too slow to admit of the use of such drugs, by strychnine hypodermatically, the largest doses being, gr. one-twentieth, often enough to keep the heart going.

This man, as well as the first patient, came near dying from syncope. He was at times unconscious and his extremities were cold. His stomach was intolerant for a time, and he was nourished by rectal alimentation. The condition of debility was relieved by rubbing with alcohol, by hot mustard footbaths and by various internal stimulants. But his heart will remain weak for a long time and he must be advised against active work.

It should be observed that this cardiac depression is far less frequent in those patients who have had the benefit of the cold water treatment as directed by Brand, of Stettin.

There is one other point about which we must be cautious in these cases of convalescence from typhoid fever. We must be sure that the patient does not pass from our hands with the alcohol habit fixed upon him. The use of alcohol has been unavoidable during the course of the disease, and you will readily understand how a patient with a weak heart is much more predisposed to keep up the use of alcohol than is a healthy individual. A man whose heart is so weak that it is impossible for him to exercise either mentally or physically with comfort unless he is sustained by alcoholic drinks, is very prone to form the habit of taking whiskey.

COMMUNICATIONS.

THE ADVANTAGES OF ANTISEPTIC IRRIGATION OF THE PARTURIENT CANAL BEFORE AND AFTER LABOR.

T. RIDGWAY BARKER M. D.

"To avoid danger is a thousand times better than to prepare to meet it."

Prompted and emboldened by this thought, I present for consideration and discussion the advantages to be gained by the employment of ante-partum and post-partum vaginal irrigation.

Having accepted as proven the role which micro-organisms and their products, ptomaines, play in the development of disease, it has been my practice for the past two years to employ, in cases of confinement, irrigation of the parturient canal.

The results from this routine method have been so uniformly satisfactory, aside from any theoretical considerations, that I would fain persuade every practitioner of obstetrics to give the plan an impartial trial.

While it has, I am well aware no definite claims to novelty, yet the rules governing aseptic midwifery are so generally disregarded in private practice that further study cannot be otherwise than beneficial.

It is certainly a fact that strong antiseptic solutions containing mercury or carbolic acid are likely, and will, if long continued, poison the patient. Garrigues, in his paper on "Corrosive Sublimate and Creolin," published in *The American Journal of the Medical Sciences,* 1889, reports twenty cases of death from this drug in obstetrical practice. But any valuable remedy will fail to give good results if not properly administered. Therefore, its abuse cannot be said, in any way to militate against its use.

The method which has given me the best results consists in having the external parts about the genital region carefully and thoroughly scrubbed with soap and

hot water with the onset of true pains. This is followed by a second cleansing with 1 to 1000 bichloride of mercury solution, the final washing being with boiled water. This completes the toilet of the entrance to the vestibule of the birth canal. As to the treatment of the canal itself, a fountain syringe is filled with one quart of hot, boiled water containing bichloride of mercury 1 to 5000. The ordinary nozzle made for vaginal use, after being rendered aseptic, is introduced into the vagina and carried up to the anterior vault of the canal, the stream of water having been running freely before introduction, to expel all air from the tube. When about half the solution has been used in bathing this portion of the vagina the nozzle is slightly withdrawn and made to enter the posterior pouch. In this way the whole mucous surface is irrigated, and at the same time some of the overflow bathes the cervix.

It is very desirable to finish this step in the procedure before rupture of the membranes, as their presence tends to prevent the escape of the antiseptic fluid into the uterine cavity and between the uterine wall and decidua. It will be noticed that so far our ante-partum efforts at cleanliness have been principally confined to the vagina, and this is the point to which our attention should be principally directed, for the source of infection is far more likely to lurk here than in the pregnant uterus.

The vaginal douches are to be administered with the female in the semi-recumbent posture, in order that free drainage may be secured and no fluid permitted to collect behind the posterior margin of the vulva. The antiseptic irrigation is to be followed by a free bathing of the parts with boiled water, so that absorption of the mercury may be rendered impossible. By these means we run no risk of mineral poisoning, while we do secure a perfectly aseptic condition of the birth canal.

When can we, without such precautions say, with any degree of certainty, this woman's birth-canal contains no gonococci or other noxious germs? Her family life may have been the purest in every particular, yet gonococci may be present. The occupation of the husband, as Lapthorn Smith, of Montreal, has pointed out, through a lack of personal cleanliness may infect his wife. Such occupations as scavengering, rag-picking, and the like, render a man especially liable to infection when the simplest rules of hygiene are neglected. The same author pertinently remarks, "Before labor begins we should disinfect the vagina of all women whose husbands have had gonorrhœa, taking it for granted that all have had it unless we have proof to the contrary."

Some writers, in spite of such facts, declare antiseptic irrigation unnecessary, because, they argue, that Doderlein's experiments, as to the nature of the micro-organisms found in the healthy vaginal canal, prove conclusively that they are non-pathogenic; but I would make answer, that what is harmless in a healthy vagina with a perfect mucous membrane is not necessarily so when its walls have been overstretched and are the seat of lacerations. The science of bacteriology has not yet declared the law that non-pathogenic micro-organisms always remain so under all conditions and circumstances.

Among those who are opposed to such prophylactic measures as I have suggested, may be mentioned Rosenberg, of the New York Polyclinic, who states in a paper published in the *Medical Record*, February 4, 1893—"So far I have not said anything about the prophylactic vaginal douches, and I only wish to speak about them to condemn their routine administration. I do not believe that the vagina can be made sterile, no matter how much douching is done; but I do believe that infectious material is very frequently carried into the genital tract by dirty instruments or fingers."

Now it goes without saying, that if you are going to employ dirty instruments and fingers in your pseudo attempts at aseptic midwifery, you had far better avoid examining the patient at all. In fact, it would be wiser to secure some one else to take charge of the case. Therefore, such an argument is fallacious.

But what is still more surprising is that the same writer in his article, should cite, in support of this view, several cases of puerperal infection in which the women died. They were supposed to have aseptic parturient canals, when in reality septic matter had been introduced by unclean midwives in their efforts to ascertain the female's condition previous to the arrival of the medical attendant.

Here we have a striking example of our inability to distinguish between an aseptic and a septic birth-canal. The life of the woman is thus risked unwarrantably when we have nothing but pure assumption on which to base our opinion.

Some extremists have gone so far as to recommend the employment of vaginal antiseptic injections as early as one week, or more, before the onset of labor, and they advise continuing them until the first stage is well advanced.

This is, perhaps, carrying the principal of antisepsis too far, but better that than not far enough. The importance of having an absolutely clean nozzle to the syringe, cannot be too forcibly impressed. Dirty tools can never be expected to do clean work.

Earle, in a paper published in the Chicago *Medical Journal and Examiner*, tersely remarks, "You cannot carry out intra-uterine injections with a half-ounce syringe and a goose-quill." Were the benefits arising from vaginal irrigation previous to delivery wholly included under the term asepsis, we might rest well-satisfied, but that is not all, for the hot fluid fills a useful purpose in softening the cervix, thereby lessening the pain incident to its dilatation.

Some may urge against the practice, that it washes away the natural mucous secretion which is intended to lubricate the parts and facilitate the passage of the infant, but this is a theoretical objection which has no existence in fact. Quite the reverse one finds to be the case, which is confirmed by Garrigues, of the New York Maternity, who states, in a paper read before the Section on Obstetrics and Gynecology, in 1892: "Personally, I am opposed to rubbing and scrubbing the vagina, as some think necessary, but as to a vaginal injection before delivery, I believe yet, that it is useful. It will remove both dirt and microbes, and if, at the same time it removes a layer of mucus that lubricates the vagina, and, therefore, protects the perineum, it is easy to see that new mucus is poured out in abundance to replace the first."

With an aseptic parturient canal our fears of infection of the eyes of the infant, as it is driven along, are practically *nil*, for there is nothing to give rise to ophthalmia, that terrible disease so fatal to the sight. As my paper does concern itself with other necessary precautions, such as those relating to the clothing and the person of physician, nurse, and patient, no mention will here be made of them.

Having outlined the ante-partum procedure which would seem to recommend itself to the careful accoucher, we have still for consideration some post-partum measures.

Whether the case has been one of natural or instrumental labor makes no difference, all must be treated alike, save the latter class will require extra care and attention, since the doors for the entrance of septic matter are more numerous and wider open.

No matter how skillfully one may have delivered the placenta and secundines, we never can know positively whether everything has been expelled. Let the examination of the placenta be ever so minute, a fragment may be left behind, or a shred of membrane that the eye of the attendant has failed to note the absence of.

Appreciating this fact, it is but fair to assume that there is in every uterus after delivery, a cavity which contains material which, if it becomes infected, will place the patient in great danger. Micro-organisms feed on dead tissue, and by their multiplication pour out ptomaines which, when brought into contact with living cells, cause their death.

Thus is formed the virulent poison which the vessels are ready to suck up and carry through the system. Let the source of the pathogenic organism be what it may, we do know that when it takes up its residence in the utero-vaginal canal it is a terrible enemy to do battle with. Therefore, it would seem but reasonable to institute prophylactic measures to prevent the entrance and development of these breeders of disease, which can best be accomplished by the employment of antiseptic irrigation.

Mercury in the form of corrosive sublimate is scarcely suitable for post-partum vaginal irrigation, since it is so readily absorbed by abraded surfaces. Hence, carcolic acid, creolin, boric acid or peroxide of hydrogen are to be preferred. The advisability of resorting to irrigation immediately after labor is questionable, since the likelihood of inducing hemorrhage, introducing air, or irritating fluid

into the yet unsealed uterine sinuses is possible.

After the lapse of twenty-four hours, however, I would recommend a vaginal douche of carbolic acid, one drachm to the pint, or creolin, one per cent., followed by an equal quantity of boiled water.

It would appear from the clinical symptoms of puerperal infection, that the first manifestations occur on the third or fourth day, in other words, the lochial discharge in the first twelve hours is so free that no contamination by micro-organisms is possible, but on the second day, the discharge not being so abundant, the germs gain a footing, and after a lapse of twenty-four hours pour sufficient poison into the blood-stream to jeopardize the life of the female.

Earle quotes Bakelmann, as deeming intra-uterine injections indicated when, forty-eight hours after birth, the temperature rises to 101.5°F. to 102.2°F., with frequent pulse, without a recognizable cause for it; also, when fragments of placenta and membranes remain in the uterus as a cause for disturbance, and when symptoms of infection of the endometrium are present.

Of course he does! Who would not under such circumstances? But where is the wisdom of waiting until these disintegrating masses become infected before bringing about their expulsion? Why, indeed, delay in removing the oil-can, so to speak, from the neighborhood of the fire when experience unmistakably teaches us that it will explode if only left there long enough? Let us, at least, be reasonable and hasten with all judiciousness to place beyond reach the dangerous element.

If our knowledge of septic processes is worth anything, it surely ought to convince us that disintegrating organic matter has no place beside the living, and the wider the range of separation the safer for the individual. When we resort to vaginal irrigation at the expiration of twenty-four hours, we find the canal in a condition suitable for such a procedure. If the amount of carbolic acid does not exceed one drachm to the pint of warm water, and free drainage is secured, surely no poisoning is possible. Too much stress cannot be laid on the importance of having the female occupy a semi-recumbent position so that the escaping fluid may tend to gravitate toward the patulous vulvar orifice. The pressure by which the solution is forced into the passage should be as low as possible, the object being to irrigate rather than inject.

As is well known, when the woman lies on her back the discharges accumulate at the posterior and inferior portion of the vagina and form a pond well-suited to become the feeding ground for pathogenic organisms. By destroying this nest, which antiseptic irrigation accomplishes, we stop the production of ptomaines and relieve the system of further danger from infection. Appreciating, therefore, the great advantages and the increased safety to the parturient, can we do better than adopt for our motto in obstetrics, and carry out in practice—"CLEANLINESS FIRST, LAST, AND ALL THE TIME."

FRACTURE OF SCAPULA FROM MUSCULAR ACTION.

P. V. HOOVER, M. D., BOONVILLE, IND.

Mr. G. T., æt. 30 years, who while scuffling with a man that was about forty or fifty pounds heavier received a fracture through the body of the right scapula. He said he threw his antagonist over his shoulder his hold suddenly breaking; and as the muscles relaxed he felt something give way on the posterior portion of shoulder. Physical examination revealed marked crepitus through body of scapula. I applied a pad over scapula and held it in position with the usual dressing. Union was rapid and perfect, and there has been no inconvenience since.

I have related the case to a number of physicians and surgeons, and they have all told me that they had never heard of a like case. I therefore report it thinking that its rarity might make it interesting.

SOCIETY REPORTS.

THE CLINICAL SOCIETY, OF LOUISVILLE.

Stated Meeting April 4, 1893.

THE PRESIDENT, Dr. I. N. Bloom in the Chair.

TUMOR OF THE BREAST.

DR. W. O. ROBERTS: I have had a run on malignant diseases of the breast in the last week, having had four cases, the last of which was operated upon to-day, all of them being patients sixty years of age. The tumor removed to-day was first noticed three years ago. Some two months before the lump was detected the lady had a fall, striking her breast against a chair, which gave her very little pain, still she seems to attribute the trouble to that blow. She tells me that the breast a year ago was very much larger than at the time of its removal to-day. It has given her a great deal of pain. No enlargement of the glands in the axilla could be detected prior to operation, but after the space was opened I found two glands that were about as large as a hazel nut. It has all the characteristics of scirrhus—retraction of the nipple and hard, indurated feel of the tumor—and it will be seen upon examination that the muscle seems to have become involved in the growth, the muscle drawn up, as it were, into the tumor. The greater part of the pectoralis major muscle was removed and the axilla thoroughly cleaned out, not only all the glands, but all fatty tissue, leaving the vessels and nerves exposed.

DISCUSSION.

DR. J. M. MATHEWS: Do you ever remove the glands in the axilla unless you can feel that they are indurated or enlarged?

DR. W. O. ROBERTS: I take them out always. Unless this is done I think the operation does not hold out much to the patient, and recurrence is apt to take place quickly.

DR. J. M. MATHEWS: The reason I asked the question is that I have seen quite a number of operations for excision of the breast where the operators paid no attention to the glands of the axilla unless an enlargement can be felt.

TWIN PREGNANCY—DEATH OF ONE FŒTUS AT FOUR MONTHS, THE OTHER BORN ALIVE.

DR. J. M. KRIM: Twelve days ago I was called to attend Mrs. T. in her third confinement. The history of the case is that she gave birth to twins the first time, second time single and this time when I was called she said she had "about three weeks to go." I made an examination and found her in the first stage of labor; I remained seven hours, I think, and the child was born matured but rather small, weighing about 6¾ pounds. A few days afterward I was telephoned to return at once as the patient was suffering with terrific pain; I went back, made an examination, and found protruding through the os something soft, after making slight traction, it ruptured and a very fœtid substance came away shortly afterward which proved to be a macerated fœtus at about the fourth month. The uterus was thoroughly douched and cleansed out, and the patient made an uninterrupted recovery.

The reason I report the case is to get the opinion of the society as to whether this was a twin pregnancy, or a subsequent pregnant condition. The child delivered on my first visit is still alive, apparently not fully grown, was about the eighth month. The fluid which came away on my second visit seemed to be perfectly clear but had a very fœtid odor.

DISCUSSION.

DR. I. N. BLOOM: How long had the patient been married and what were the intervals between the various pregnancies?

DR. J. M. KRIM: Married eight years. First delivery fifteen months after marriage; second four years after the first, this being the third which is about three years after the second.

DR. D. P. SATTERWHITE: I do not think there can be any doubt but both

impregnations occurred during one coition. It is proven according to Gaston that there are never true twins unless they are enveloped in the same sac.

Dr. W. O. Roberts: Do you know if there was at any time during pregnancy any uterine hemorrhage?

Dr. J. M. Krim: This patient belongs to the working class, and said that one time while sweeping she felt a peculiar pain which lasted probably two or three hours; after that she felt nothing more of it. She said, of course, that she felt some pain occasionally, but attributed it to the condition she was in as she had noticed the same pains in previous pregnancies.

I am of the opinion it was a twin pregnancy, two placentas, but why one ceased to grow at four months and the other go on to nearly full term, I am unable to say.

EPICYSTOTOMY FOR REMOVAL OF CATHETER FROM THE BLADDER.

Dr. W. O. Roberts: I performed an epicystotomy week before last on a man sixty-five years of age; the history was that he had some trouble in passing urine and had to occasionally use the cathether to empty the bladder. He was a hard drinking man and three weeks before I saw him he had occasion to use the catheter which he said had not been necessary for some months before, and after introducing it into the bladder it broke off. He said it was one of those red rubber instruments and he was in hopes that he would be able to pass the piece that was left in the bladder, but this did not occur. Violent cystitis developed and his physician consulted me on the subject. I told him the only thing to do was to perform a cystotomy and remove the portion of catheter. The patient came here and I intended keeping him in the infirmary for a few days to prepare him for the operation, but he said he would remain at the hotel until the preliminary treatment had been carried out. In the afternoon (Tuesday) I went to the hotel and found that the patient had gone to the infirmary; when his son had come to my office to consult me about the operation, the old gentleman had gotten on a big spree, and the boy took him immediately to the infirmary. Tuesday evening he was very drunk; Wednesday he sobered up and we managed to keep him in the house until the next day when I operated. I removed from his bladder two pieces of catheter, one about two inches and the other one inch in length, and each piece was heavily coated with salts from the urine—I suppose the coating was at least $\frac{1}{16}$ of an inch in thickness. They were not broken in the attempt to remove the fragments during operation, because they were entirely covered with this coating, showing that there were originally two pieces in the bladder. The technique of the operation was about this: A rubber bag was introduced into the rectum and distended with air, then the bladder was filled with air, then the bladder was filled with water —I say filled, eight ounces being put into it—then an incision made and bladder opened. The incision was made a little too low; I got in front of the point where I wanted to open the bladder and went into the upper wall of the prostate. I recognized this fact simply by the considerable amount of hemorrhage at the time. I carried my incision into the bladder, removing the two pieces of catheter and the man recovered without an untoward symptom, and without the slightest elevation of temperature. He was up on the sixth day sitting in a chair. He now spends most of his time sitting at the window in his room at the infirmary.

DISCUSSION.

Dr. I. N. Bloom: How did you treat the bladder wound afterward?

Dr. W. O. Roberts: After removing the catheter I washed the bladder out very thoroughly with hot boric acid solution then introduced a strip of iodoform gauze draining the bladder in that way for twenty-four hours, then took the gauze out. Did not use any sutures in the bladder at all, or in fact anywhere.

Dr. I. N. Bloom: I was connected with a case of epicystotomy a few days ago in the role of consultant, another gentleman doing the operation. Dr. Schachner asked me to see a case in consultation, the patient giving unmistakable clinical history of stone. He had not up to that time sounded for stone, and I advised that this be done, feeling sure that we would find one. This proved to be the case and I was asked to be present at the operation for its removal. He did an

epicystotomy very neatly and dextrously; there was no hemorrhage. He used the colpeurynter, distending the rectum with about eight ounces of water; there was no trouble with the peritoneum; the stone removed was phosphatic, oval in shape and weighed one ounce two grains. The after treatment differed from the method mentioned by Dr. Roberts: He sutured the bladder; by the way I do not think it is ever possible to select the muscular coat and be absolutely certain that you have not included some portion of the mucous coat. In closing the external wound he left a glass drainage tube in the lower angle for a day, and leaving a permanent catheter inserted for forty-eight hours. The patient did uninterruptedly well. The only difference in technique of the operation between the two was the after treatment. I ask for information and would like to know why Dr. Roberts used the method he spoke of, the open treatment without stitching the bladder.

Dr. W. O. Roberts: I preferred it because the man had cystitis; the principal object in the open treatment was to get rid of the cystitis.

STRICTURE OF THE OESOPHAGUS.

A man twenty-eight years of age, who had typhoid fever in December, was given permission by his physician to eat solid food on the third of February last. He had a chicken cooked but when he made the attempt to eat it, he found that he was unable to swallow. He was brought to me the other day and I believe he has a complete stricture of the oesophagus. I did not use the oesophageal tube to see whether or not it could be passed, but his physician told me a little over four weeks ago he passed a tube into the stomach and the patient then attempted to pass it himself, but it bled so considerably he desisted. I examined him as carefully as I could and could detect no evidence of any tumor or any trouble with the heart or aorta producing pressure upon the oesophagus interfering with deglutition in this way, and had him taken to the infirmary; shortly after going there he began to improve, was able to take milk without any trouble, and I took it that the stricture was due to some local or reflex trouble that would pass away, but for the last three days he has been unable to swallow anything at all and is running down. I would like to know if any Fellow has ever met with a similar case.

DISCUSSION.

Dr. P. Gunterman: I saw a case reported in the *New York Medicinische Monatschrift* where a very similar state of affairs existed after convalescence from typhoid fever; the patient suddenly was unable to swallow. A tumor was detected however causing complete closure of the oesophagus and in a very little while the man died. A post mortem was held revealing a little typhoid fever ulcer in the oesophagus which let fluid enter in between it and the trachea, closing up the oesophagus and trachea. There may have been something of this kind in the case reported by Dr. Roberts.

Dr. P. Gunterman read a paper (see page 806 issue of May 27) on

CHLOROFORM ANÆSTHESIA AND ITS ADMINISTRATION.

DISCUSSION.

Dr. L. S. McMurtry: In the consideration of this important subject one question deserves special attention, viz., Who should administer anæsthetics? Generally speaking, every physician ought to be qualified to administer anæsthetics, and in obstetrical practice anæsthetics are given with impunity and safety without any special skill. When we consider the daily frequency with which anæsthetics are used in skilled and unskilled hands and under all varieties of conditions and complications, it is remarkable that so few accidents occur. But there is something more in administering anæsthetics than procuring respite from pain without the immediate death of the patient. Anæsthetics can do serious damage in surgical cases without producing death. Prolonged and profound saturation with anæsthetics is often the cause of death after surgical operations which are classified as deaths from shock. I do not believe we can too strongly emphasize the responibility of the anæsthetist in surgical work. That is a position of the highest responsibility and requires judgment, care and skill, and since the operator assumes all responsibility it is a position of high trust. The duty of an anæsthetist should be entrusted only to those who have learned how to administer these agents, and who realize the responsibility. In this, as in other

features of surgical work, much of success depends upon attention to details. Fright is of itself an element of danger in anæsthesia. The anæsthetist should be introduced to the patient and establish confidence and give assurance. The operation, however trivial, should not be begun until anæsthesia is produced; by this I mean insensibility to pain. And then a certain degree of anæsthesia should be maintained, using the smallest quantity of the drug possible to attain this condition.

My friend, Dr. Kynett, of Philadelphia, who has had an exceptionally rich experience with anæsthetics, has called attention to a valuable sign of the danger line in anæsthesia: When the addition of fresh ether to the cone fails to produce an up-and-down movement of the wind-pipe the ether should be withdrawn; when that movement occurs, the condition is a safe one.

Dr. J. W. Guest (Visiting): I have listened with a great deal of interest to the paper read, and heartily indorse it in substance. I have found from my personal experience, however, four points in which I would slightly differ with the essayist.

1st. I believe that the stomach should be entirely empty if possible, at the time the anæsthetic is administered. Of course if there be nothing practically in the stomach that much less will the vomiting be.

2nd. In regard to watching the respiration: In giving chloroform about four hundred times, I have had eight accidents or seven accidents and one death; and I have noticed that the circulation and not the respiration was the first to disappear.

3rd. Concerning the cone: I formerly used the towel and paper cone, but in the last one hundred cases I have employed the Esmarch cone and bottle which I think is decidedly the best and safest cone that I have ever seen.

4th. I find that those patients who fear chloroform most usually take it best.

Dr. J. M. Mathews: I suppose I am recognized as a chloroformist, because I believe honestly in the administration of chloroform in preference to ether. I have never had an accident or a failure in administering it; I do not know how often I have given it, but would say between two or three thousand times since I began the practice of medicine. I have administered it four times to-day.

One of the greatest points of interest to be discussed in this matter is, which is the safest anæsthetic of the two? And this is the reason I suggested that we be allowed to mention these points. I believe that if you will take your patients indiscriminately and treat them as physicians usually treat them; that is, without paying attention to the points brought out by Dr. Gunterman, it can be demonstrated that chloroform is the safest anæsthetic. Dr. Gunterman very properly says that the heart should be examined,—he should also have added that the urine should be examined; but who does it?

If you will permit me to say in this connection, it has not been many months since I saw in consultation with one of our most eminent physicians a case in which it was decided to do an operation, and this physician said, for safety we will give him ether. It was understood that he would make an examination of the urine prior to administration of the anæsthetic, but he failed to do so. Reaching the place where the patient was, and having no ether, we decided to give chloroform An analysis of the urine was made afterwards and it was found to contain a very large percentage of albumen. The patient died in less than six months with albuminuria. We gave him chloroform; could we have given him ether safely?

I believe, therefore, if you will take the patients as they come, hospital dispensary and private, recognizing how common diseases of the kidney, etc. are, that we have the safest anæsthetic in chloroform.

Under the first proposition of the essayist, as to who can take chloroform? There is a medico-legal point involved. The law holds the physician responsible for deaths from anæsthesia if he is derelict in his duty, and this is done upon the idea that the physician should make an examination of the patient before he gives the anæsthetic. In other words, it is presumed we know why patients die from anæsthesia. I doubt if we do. Such able physicians as McBurney and McLane have stated that they believed œdema of the lungs caused the death of Col. Shephard. I have heard it hinted at least by physicians here, and there is a doubt expressed even in their own report, whether that was the case or not. The question without a post mortem cannot be settled, whether for instance this man had any

serious kidney trouble, and that was the cause of his death. While it is stated that they made an examination of the urine formerly, from my reading of the case I infer they had not done so recently.

As to who can take chloroform, I must confess that I have given it in heart trouble, where there was organic disease; I have given it where there was organic disease of the kidney; I have given it to exceedingly highly nervous women—and I want to say in this connection that I perfectly agree with Dr. Guest that nervous, hysterical women take chloroform better than anybody else. In other words those who dread the anæsthetic, those of highly sensitive natures go quickly under its influence and have less trouble than any other class of people. I do not believe we can tell by looking at a patient how he is going to take chloroform. It has been my personal observation that fat large men take a less amount of chloroform than small or delicate men. A member of this society will remember a case where a man weighing fully two hundred pounds was thoroughly anæsthetized by one whiff of chloroform, and remained so for twenty or thirty minutes.

As to the signs evidenced that a person is under the effect of the anæsthetic—Bilroth, in his clinic, proposes the method of having the patient count from one to as many as he can, and when he ceases counting, he says he is ready for operation. I have tested this and believe it a good plan. I have seen many cases where the pupil failed to be a good guide. My habit has been, (and I believe it is a good one) to lift the arm and ask the patient to hold it in that position; as long as he does so, or so long as there is an effort made in that direction, he is not ready, but when the arm drops he is ready for the operation. I believe I have never known this to fail.

In regard to stertorous breathing—Dr. Gunterman has very properly said that when this occurs, chloroform should be immediately stopped. He also says any effort at vomiting, an attack of nausea, should be an indication for ceasing the administration of chloroform—if this were done in all cases you would be unable to to operate many times.

As to the method of giving chloroform: I believe it is the concensus of opinion that chloroform should be given rapidly and yet carefully. I dislike very much to have an assistant who seems to be afraid of giving too much cloroform, and gives too little. I am satisfied that deaths do occur in the manner spoken of by Dr. McMurtry, under partial anæsthesia. So thoroughly am I convinced of this that I will not touch the rectum to do a surgical operation until the patient is profoundly under the influence of the anæsthetic; not even to stretch the sphincter muscle. There are many points that might be brought out in this discussion. What we know about chloroform comes more from ones experience and observation. Those that have been in the habit of giving chloroform without accident will prefer it, the same can be said of ether.

Dr. Geo. W. Griffiths: I am in favor of chloroform to the entire exclusion of ether. I have seen chloroform administered at Shiloh, Chickamauga, Stone River, Perryville, in hundreds of cases, all sorts of men with all sorts of injuries, and in all that time—in fact in all my experience extending over a period of more than twenty-five years,—I have never seen but one death and that occurred at the first battle at Green River, in 1861. I do not believe in the use of a cone, I think the chloroform should be used on a napkin and given in this way it lessens the danger as it is by this method that it is better mixed with the atmospheric air.

Dr. T. P. Satterwhite: I prefer chloroform to ether. One of the most objectionable features of ether is the sensation of suffocation. I believe in the administration of chloroform, but think a man ought to administer it very cautiously. I agree with what Dr. Griffiths has said with regard to the admixture of atmospheric air with the chloroform. I differ with Dr. Gunterman in this particular, that in the stage of excitement which we often have in the administration of chloroform, during this period I push the chloroform more vigorously than at any other time. I would like to say with regard to what Dr. McMurtry alluded to, and which I supposed every member of the society knew, the universal custom is that the anæsthetist shall make a charge for his services. I would not think of asking a man to administer an anæsthetic without expecting him to make a charge.

In nine-tenths of the surgical operations the anæsthetist has the most responsible position.

Dr. I. N. Bloom: It is largely a question of locality as to the preference for ether or chloroform. In Boston, and with those people who have gone there to complete their medical education, ether is used almost exclusively. In the south and west for some years chloroform has been employed universally. I think anyone who reads the journals will see the tendency toward returning to ether; an increase of ether advocates. In New York it is about evenly divided and apparently remains in *statu quo*. It is claimed—I received my education in Boston—that the mortality in a given number of cases, say in possibly 100,000 cases, was less from ether than from chloroform. I know that this is the principal reason why ether is advocated by those who teach the use of anæsthetics in surgery in Harvard College. Now I also know that there is no strong advocate of chloroform who does not maintain that the mortality is less from chloroform. I do not think any of us here are competent to judge. I think there is only one way of demonstrating this and that is to take the first 100,000 cases or even a greater number of cases and following up the mortality, and even then it is not satisfactory. A man may have a death from imperfect knowledge of the method of administering, or as has been suggested very properly by Dr. Mc Murtry, by incomplete anæsthesia. I do not think any discussion among a few men will convince either side as to which is the better anæsthetic to use, and I believe it is like the discussion of a political question "when it is finished you are unchanged in your opinion."

Dr. P. Gunterman: I simply wish to remark that in my paper thus far nothing whatever was said with reference to ether, although the discussion seems to have branched off in that direction.

CORRESPONDENCE.

ELEVENTH INTERNATIONAL MEDICAL CONGRESS.

Editor Medical and Surgical Reporter:—I beg to inform you, and your readers and exchanges through you, that there in *no foundation* in the rumors referring to a postponement of the Eleventh International Medical Congress, such is the information conveyed to me in a letter of the Secretary General's dated Genoa, May 15th.

It is officially announced, that part of the 15th Section of the Congress will be dedicated to the exclusive consideration of Cholera and Quarantine. Professors Cunningham and Koch are expected to participate in the proceedings of this Subsection.

Beside the North German Lloyd, the Hamburg American Packet Co. and the Campagnie Générále Transatlantique—the Netherland-American Steam Navigation Company (39 Broadway N. Y.) offers reduced rates to visitors of the Congress. The Hamburg American Packet Co. writes to say that the families of members are entitled to all the reductions.

Very respectfully yours

A. Jacobi.

New York, May 28, 1893.

A clergyman, one hot Sunday, observing a deacon asleep in church, called out: "Brother Austin, please open the window a little. Physicians say it is unhealthy to sleep in a hot room."—*Quincy Journal.*

Small Boy—"Papa, what are roosters?"

Father—"Gentlemen hens, my son."

Small Boy—"Do they lay eggs or hatch chickens?"

Father—"No."

Small Boy (meditatively)—"Only hens and ladies hatch chickens and children, consequently I won't have the anxiety of hatching children."—*Ex.*

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SATURDAY, JUNE 3RD, 1893.

EDITORIAL.

FUROR—OPERANDI AND MODERN LISTERIANISM.

Probably in the whole realm of Medical Science, from its early origin to the present time, there never was a doctrine sprung on the profession, so to speak, which was so generally and eagerly accepted by the whole civilized world; which became so popular, and finally was regarded as a fixed dogma, that has been so short-lived as the *antiseptic* theory. To-day it must be admitted that orthodox antiseptic treatment is chiefly interesting only from an historical standpoint for it has, in recent times, been by many of our most respected authorities as fiercely condemned as it was in but the near past supported and recommended.

In Mr. Joseph Lister's address on Antiseptics, at the Queen's College Hospital, delivered on the 18th of January, 1893, it is only too apparent that he has found it necessary to turn his back on the offspring which, but a few short years ago, he gave to the world, and which was regarded as a boon of priceless value. But in this address the spray is not mentioned and Bichloride of Mercury is declared an unreliable agent.

Chiene, in his address to the British Medical Association in 1891, declared that every sort of chemical solution was a foreign substance in a healthy wound. Gynecologists in a body cast aside antiseptics as useless and dangerous in the surgery of the peritoneum. The enormous stone or glass jars, the irrigating hose and the operator's wooden clogs to lift him out of the pools of irrigating fluids, these former indispensible appurtenances of the ideal operating room, have one and all been thrown out.

Manley, of New York, has called attention to the destructive irritation which he noticed when the corrosive solution was employed in cranial surgery, and reported a number of amputations in which, though primary union followed, useless stumps resulted, osteo-myelitis followed and consecutive amputation was required.

Antiseptics enormously increased the number of surgical operations for a time, so that for a while it seemed that the field of medicinal constitutional treatment would be greatly narrowed. We had a veritable *furor-operandi*. But it has swept over and now that the reaction has set in, we may ask "if these new theories have not led to too much mutilation, and if as good or even better results might not have succeeded by tentative measures combined with an appropriate dietary, internal medication and more time."

Antiseptics have their place, but let us distinctly understand their powers and properties before we employ them, for without question their indiscriminate employment in the past has in many cases worked incalculable injury.

THE NEW MEDICAL LAW IN PENNSYLVANIA.

AN ACT

To establish a Medical Council and three State Boards of Medical Examiners; to define the powers and duties of said Medical Council and said State Boards of Medical Examiners; to provide for the examination and licensing of practitioners of medicine and surgery; to further regulate the practice of medicine and surgery, and to make an appropriation to the Medical Council.

Whereas, the safety of the public is endangered by incompetent physicians and surgeons, and due regard for public health and the preservation of human life demands that none but competent and properly qualified physicians and surgeons shall be allowed to practice their profession.

SECTION 1. Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met and it is hereby enacted by the authority of the same. That there shall be established a Medical Council of Pennsylvania, consisting of the Lieutenant Governor, the Attorney General, the Secretary of Internal Affairs, the Superintendent of Public Instruction, and the President of the State Board of Health, and Vital Statistics and the Presidents of the three State Boards of Medical Examiners provided for in this act.

SECTION 2. The said council shall be known by the name and style of the Medical Council of Pennsylvania and may make and adopt all necessary rules and regulations and by-laws not inconsistent with the constitution and laws of this Commonwealth, or of the United States and shall have power to locate and maintain an office within this State for the transaction of business. Five members of the said council shall constitute a quorum for the transaction of business.

SECTION 3. The said council shall organize at Harrisburg within ten days from the date of the organization of three boards of medical examiners and shall elect from its own number a president and a secretary who shall also act as treasurer, both of whom shall hold their offices for one year or until their successors are chosen.

SECTION 4. The members of the said council shall receive no salary, except the secretary and treasurer, who shall receive a salary of not over five hundred dollars and who shall file with the president of the council a bond in the sum of one thousand dollars condition for the faithful performance of his duties. The necessary expenses of the said council shall be paid out of the appropriation made in section sixteen of this act and any balance remaining from the appropriation after the disbursements herein specified shall be paid into the Treasury of the Commonwealth.

SECTION 5. The said medical council shall hold two stated meetings in each year at Harrisburg and may hold special meetings at such times and places as it may deem proper. It shall supervise the examinations conducted by the three State Boards of Medical Examiners of all applicants for license to practice medicine and surgery in this Commonwealth and shall issue licenses to practice medicine and surgery to such applicants as have presented satisfactory and properly certified copies of licenses from State Boards of Medical Examiners or State Boards of Health of other States as provided for in section thirteen of this act, or as have successfully passed the examination of one of the three State Boards of Medical Examiners, but all such examinations shall be made by the State Boards of Medical Examiners established in section six of this act. And the said medical council shall have no power, duty, or function except such powers, duties, and functions as pertain to the supervision of the examinations of applicants for licenses to practice medicine and surgery and to the issuing of licenses to such applicants as have successfully passed the examination of one of the State Boards of Medical Examiners, or have presented satisfactory and properly certified copies of licenses from State Boards of Medical Examiners or State Boards of Health of other States as provided for in section thirteen of this act.

SECTION 6. It is further enacted that from and after the first day of March, Anno Domini one thousand eight hundred and ninety-four, there shall be and continue to be three separate boards of medical examiners

for the State of Pennsylvania, one representing the medical society of the State of Pennsylvania, one representing the homœopathic medical society of the State of Pennsylvania, one representing the eclectic medical society of the State of Pennsylvania.

Each board shall consist of seven members and each of said members shall serve a term of three years from the first day of March next after his appointment with the exception of those first appointed who shall serve as follows, namely: Two of each board for one year, two of each board for two years, and three of each board for three years, from the first day of March, Anno Domini one thousand eight hundred and ninety-four.

The Governor shall appoint the members of said boards of examiners respectively from the full lists of the members of the said medical societies, which shall on or before the first day of January, one thousand eight hundred and ninety-four, and annually thereafter, be transmitted to the Governor under the seal and signed by the secretary of the society so nominating. From these lists of nominees respectively the Governor shall during the month of January, Anni Domini one thousand eight hundred and ninety-four, appoint three separate boards of medical examiners, each board to be composed exclusively of members of the same medical society. In case of failure of any or all said medical societies to submit lists as aforesaid the Governor shall appoint members in good standing of the corresponding society or societies entitled to nominate without other restriction. Each one of the said appointed must be a registered physician, in good standing and shall have practiced medicine or surgery under the laws of this State for a period of not less than ten years prior to such appointment.

The Governor shall fill vacancies by death or otherwise for unexpired terms of said examiners from the respective lists submitted by the said medical societies and may remove any member of any said boards for continued neglect of the duties required by this act or on recommendation of the medical society of which said members may be in affiliation, for unprofessional or dishonorable conduct.

The Governor shall in his first appointments designate the number of years for which each appointee shall serve. The appointments of successors to those numbers whose term of office will expire on the first day of March, of each year, shall be made by the Governor during the month of January of such year upon the same conditions and requirements as hereinbefore specified, with reference to the appointment of three separate examining boards, each to be composed exclusively of members of the same medical school and society as hereinbefore provided.

Section 7. Said boards shall be known by the name and style of Boards of Medical Examiners of the State of Pennsylvania. Every person who shall be appointed to serve on either of said boards shall receive a certificate of appointment from the Secretary of the Commonwealth.

Each of said boards shall be authorized to take testimony concerning all matters within its jurisdiction and the presiding officer, for the time being, of either of said boards, or of any of the committees thereof may issue subpœnas and administer oaths to witnesses. Each of said boards of examiners shall make and adopt all necessary rules, regulations and by-laws not inconsistent with the constitution and laws of this State, or of the United States, whereby to perform the duties and transact the business required under the provisions of this act, said rules, regulations and by-laws to be subject to the approval of the Medical Council of Pennsylvania established by this act.

Section. 8. From the fees provided by this act the respective boards may pay, not to exceed said income, all proper expenses incurred by its provisions and if any surplus above said expenses shall remain at the end of any year it shall be apportioned among said examiners pro rata according to the number of candidates examined by each, *Provided,* That the Medical Council shall keep separate accounts of all fees received from physicians applying for licenses to practice medicine and surgery and shall not devote any such fees to the uses of the council or to the uses or remuneration of any other examining board than that of the society with which the physician who pays the fee wishes to be affiliated.

Section 9. The first meeting of each of the examining boards respectively shall be held on the first Tuesday of April, one thousand eight hundred and ninety-four, suitable notice in the usual form being given with the notice of their appointment by the Secretary of the Commonwealth to each of the members thereof, specifying the time and place of meeting.

At the first meeting of each of the boards respectively an organization shall be effected by the election from their own membership of a president and secretary. For the purpose of examining applicants for license each of said boards of medical examiners shall hold two or more stated or special meetings in each year, due notice of which shall be made public at such times and places as they may determine. At said stated or special meetings a majority of the members of the board shall constitute a quorum thereof but the examination may be conducted by a committee of one or more members of the board of examiners duly authorized by said boards.

Section 10. The several boards of medical examiners shall, not less than one week prior to each examination submit to the Medical Council of Pennsylvania questions for thorough examinations in anatamy, physiology, hygiene, chemistry, surgery, obstetrics, pathology, diagnosis, therapeutics, practice of medicine and materia medica. From the lists of questions so submitted the council shall select the questions for each examination and such questions for each examination shall be the same for all candidates except that in the departments of therapeutics, practice of medicine and materia medica the questions shall be in harmony with the teachings of the school selected by the candidate.

Section 11. Said examinations shall be conducted in writing in accordance with the rules and regulations prescribed by the Medical Council of Pennsylvania and shall embrace the subjects named in section ten of

this act. After each such examination the board having charge thereof, shall without unnecessary delay act upon the same. An official report of such action signed by the president, secretary and each acting member of said board of medical examiners stating the examination average of each candidate in each branch, the general average and the result of the examination, whether successful or unsuccessful, shall be transmitted to the Medical Council. Said report shall embrace all the examination papers, questions and anwers thereto. All such examination papers shall be kept for reference and inspection for a period of not less than five years.

SECTION 12. On receiving from any of said boards of medical examiners such official report of the examination of any applicant for license the Medical Council shall issue forwith to each applicant who shall have been returned as having successfully passed said examination and who shall have been adjudged by the Medical Council to be duly qualified for the practice of medicine, a license to practice medicine and surgery in the State of Pennsylvania. The Medical Council shall require the same standard of qualifications from all candidates except in the departments of therapeutics, practice *of medicine* and materia medica, in which the standard shall be determined by each of the boards respectively. Every license to practice medicine and surgery issued pursuant to this act shall be subscribed by the officers of the Medical Council and by each medical examiner who reported the licentiate as having successfully passed said examinations. It shall also have affixed to it, by the person authorized to affix the same, the seal of this Commonwealth.

Before said license shall be issued it shall be recorded in a book to be kept in the office of the Medical Council and the number of the book and page therein containing said recorded copy shall be noted upon the face of said license. Said records shall be open to public inspection under proper restrictions as to their safe keeping and in all legal proceedings shall have the same weight as evidence that is given to the conveyance of land.

SECTION 13. From and after the first day of July, Anno Domini one thousand eight hundred and ninety-four, any person not theretofore authorized to practice medicine and surgery in this State and desiring to enter upon such practice may deliver to the Secretary of the Medical Council, upon the payment of *a fee of twenty-five* dollars, a written application for license, together with satisfactory proof that the applicant is more than twenty-one years of age, is of good moral character, has obtained a competent common school education and has received a diploma conferring the degree of medicine from some legally incorporated medical college of the United States, or a diploma or license conferring the full right to practice all the branches of medicine and surgery in some foreign country. Applicants who shall have received their degree in medicine after the first day of July, one thousand eight hundred and ninety-four, must have pursued the study of medicine at least *three* years including three regular courses of lectures in different years in some legally incorporated medical college or colleges prior to the granting of said diploma or foreign license, *and after the first day of July, eighteen hundred and ninety-five, such applicants must have pursued the study of medicine for at least four years, including three regular courses of lectures in different years in some legally incorporated medical college or colleges prior to the granting of said diploma or foreign license.* Such proof shall be made, if required, upon affidavit. Upon the making of said payment and proof the Medical Council, if satisfied with the same, shall issue to said applicant an order for examination before such one of the State Boards of Medical Examiners as the applicant for license may select. In case of failure at any such examination the candidate after the expiration of six months and within two years shall have the privilege of a second examination by the same board to which application was first made without the payment of an additional fee. And it is further provided, that applicants examined and licensed by State Boards of Medical Examiners or State Boards of Health or other States, on payment of a fee of fifteen dollars to the Medical Council and on filing in the office of the Medical Council a copy of said license certified by the affidavit of the president or secretary of such Board, showing also that the standard of acquirements adopted by said State Board of Medical Examiners, or State Board of Health, is substantially the same as is provided by sections eleven, twelve and thirteen of this act, shall without further examination receive a license conferring on the holder thereof all the rights and privileges provided by sections fourteen and fifteen of this act.

SECTION 14. From and after the first day of March, Anno Domini., one thousand eight hundred and ninety-four, no person shall enter upon the practice of medicine or surgery in the State of Pennsylvania unless he or she has complied with the provisions of this act and shall have exhibited to Prothonotory of the court of common pleas of the county in which he or she desires to practice medicine or surgery a license duly granted to him or her as hereinbefore provided whereupon he or she shall be entitled upon the payment of one dollar to be duly registered in the office of the Prothonotary of the court of common pleas in the said county and any person violating any of the provisions of this act shall be guilty of a misdemeanor and upon conviction thereof in the court of quarter sessions of the county wherein the offense shall have been committed shall pay a fine of not more than five hundred dollars for each offence.

SECTION 15. Nothing in this act shall be construed to interfere with or punish commissioned medical officers serving in the army or navy of the United States or in the United States Marine Hospital service while so commissioned or medical examiners of relief departments of railroad companies while so employed or any one while actually serving as a member of the resident medical staff of any legally incorporated hospital, or any legally qualified and registered dentist exclusively engaged in the practice of dentistry, or shall it interfere with or prevent the dispensing and sales of medicines or medical appliances by apothecaries, pharmacists, or

interfere with the manufacture of artificial eyes, limbs or orthopedical instruments or trusses of any kind, for fitting such instruments on persons in need thereof, or any lawfully qualified physicians and surgeons residing in other States or countries meeting registered physicians of this State in consultation, or any physician or surgeon residing on the border of a neighboring State and duly authorized under the laws thereof to practice medicine and surgery therein whose practice extends into the limits of this State; Provided, that such practitioner shall not open an office or appoint a place to meet patients or receive calls within the limits of Pennsylvania or physicians duly registered in one county of this State called to attend cases in another county but not residing or opening an office therein. And nothing in this act shall be construed to prohibit the practice of medicine and surgery within this Commonwealth by any practitioner who shall have been duly registered before the first day of March, Anno Domini one thousand eight hundred and ninety-four, according to the terms of the act entitled "An act to provide for the registration of all practitioners of medicine and surgery" approved the eighth day of June, Anno Domini one thousand eight hundred and eighty-one, and one such registry shall be sufficient warrant to practice medicine and surgery in any county in this Commonwealth.

SECTION 16. The sum of two thousand dollars is hereby appropriated out of any moneys in the State Treasury not otherwise appropriated, for the salary of the secretary and treasurer of said medical council and the necessary expenses of said council; one thousand dollars thereof for the year beginning January, one thousand eight hundred and ninety-four, and one thousand dollars thereof for the year beginning January, one thousand eight hundred and ninety-five.

SECTION 17. All acts or parts of acts of Assembly inconsistent herewith shall be and are hereby repealed.

TRANSLATIONS.

REPORT OF THE "MAISON D'ACCOUCHEMENTS BAUDELOQUE," UNDER THE MANAGEMENT OF PROF. A. PINARD AND REPORTED BY DR. G. LEPAGE.*

This report containing an exhaustive study of all the possible phases of pregnancy, labor, delivery and subsequent complications presented in both a tabular and descriptive form, will be of interest to the obstetrician, those particular cases which occur less often in every day practice, may seem of interest given in the abstract.

One is an abdominal section done for extra-uterine pregnancy of seven months in a primipara, æt. 28, married two years. Had always menstruated regularly until July 9th, when there was an omission, but in the latter part of August it returned; this ceased after a few days and was soon followed by abdominal pains extending to the lumbar region and small pelvis, necessitating the recumbent position. Morphia was administered but the symptoms continued for fifteen days after this slight improvement until October, when the same train of symptoms recurred and again diminished until November.

At this time she expelled portions of membrane with but slight bleeding or pain. A consultation resulted in making a diagnosis of a retroverted pregnant uterus. Extra-uterine pregnancy was considered and dismissed.

Hot antiseptic injections and absolute rest were ordered. Toward the middle of December all painful symptoms disappeared.

The patient, though able to be up, tires very easily, her abdomen increasing in left lateral half, where a round tumor can be felt reaching to the level of the umbilicus. Not much general emaciation but great general weakness.

During February, motion was felt for the first time, which ceased after the third week.

The patient was admitted on the 20th of March; the tumor easily outlined, is immovable, about the size of a four months pregnant uterus, is tender to touch, and some fluctuation, but no motion can be detected; a mass below and to the right is found to be the uterus. The operation—April 1st, 1892—Median incision, the cyst is sutured to the abdominal wall, removal of dead fetus—290 gm. The placenta is left, the cavity cleansed with antiseptics and packed with iodoform gauze. April 30th the last of the

*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

placenta was removed. The patient was discharged May 29th.

One case of Ischio-pubiotomy after the method of Farabœuf, performed January 10th, 1893.

Patient æt. 32; previous pregnancies:

1st.—May, 1887; oblique flat pelvis; obliquity to the right; version; forceps; Basiotripsy.

2nd.—May, 1888; version; difficult extraction of the head; child resuscitated with difficulty; lived five months.

3rd.—May, 1890; midwife ruptured membranes. First doctor applied forceps five times. Second doctor applied once, also without effect. The author practiced version and delivered the body, but the head could not be extracted, and craniotomy remained unsuccessful; not until the combined force of three was used could the head be delivered.

4th.—September, 1891; induced premature labor, forceps, prolapse of the cord, child born dead.

5th.—September, 1892; on consultation with M. Farabœuf it was deemed best to wait full term and then perform Ischio-pubiotomy.

Labor set in November 8th; afternoon; 9 A. M. November 9th the operation was performed. The Ischio-pubic articulation of the right side was divided by a chain saw—the child extracted with the aid of Farrier's forceps. The only sutures taken were those in the soft parts, the bone being readily placed in proper contact. The patient was treated same as those for symphysiotomy. December 19th, able to walk without difficulty; child weighed then nearly eleven pounds. There were thirteen symphysiotomies. Three children died after birth. One died the next day owing to an injury of the parietal portion of the cranium. The second died of cyanosis on the third day. The third died on day of birth, cause unknown.

The patients seem all to have recovered fully and are able to walk comfortably.

The following tables will give a more definite account of all the cases and their results, reported.

Resume of the statistics of the clinic of Bandelocque from January 1st, 1890, to January 1st, 1893.

Year	No. of Deliv'res	Total No. of Deaths	No. of deaths by Infection	Mortality	
				Total	By Puerp Infection
1890	1244	9	4	0.72	0.32
1891	1654	20	4	1.20	0.24
1892	1834	8	3	0.49	0.11
Total..	4732	37	11	0.68	0.22

Operations performed during the year 1892.

	Primip.	Multip.
76 Forceps—		
Normal pelves	34	7
Contracted pelves	13	6
Face presentation	1	0
In cases of induced labor	2	0
Following Basiotripsy	0	3
Following Symphysiotomy	1	4
Cases which symphysiotomy followed the use of forceps	3	9
Twin pregnancies	3	0
38 Extractions by the breech	20	18
11 Induced labor—		
For contracted pelves	4	4
For other causes	3	0
9 Basiotripsies—		
Fetus dead before operation	0	4
After application of forceps (died)	0	3
Performed on the after coming head	0	2
1 Simple craniotomy	0	1
13 Symphysiotomies—		
After induced labor	2	3
After spontaneous labor	1	7
1 Ischio-pubiotomy	0	1
1 Laparotomy for extra-uterine pregnancy	1	0
10 Versions-Internal Manipulations—		
For presentation of the shoulder	0	5
Following induced labor	1	0
After introduction of "Ballon Champetier"	0	3
Twin pregnancies	1	0
4 Embryotomies "cervicles"	0	4
1 Embryotomies "rachidanne," (after the method of Van Huevel and Tarnier	0	1
34 Artificial delivery—		
For hemorrhage	1	11
After operation (Forceps-Version)	7	2
After operation or dead fetus	3	4
After symphysiotomies	2	4

Maternal Histories.	Primipara							Multipara							
	No. of Cases	Recoveries	Deaths	Temp'tures Not above 38° C	Temp'tures From 38° to 39° C	Temp'tures Above 39° C		No. of Cases	Recoveries	Deaths	Temp'tures Not above 38° C	Temp'tures From 38° to 39° C	Temp'tures Above 39° C	
Abortions	12	10	2	6	6			31	31		23	3	5	
Spontaneous Delivery—Normal Pelvis	691	689	2	586	60	45		777	775	2	702	46	29	
Spontaneous Delivery—Contracted Pelvis	46	46		43	2	1		61	61		55	5	1	
Face Presentation	2	2		2				18	18		14	3	1	
Breech Presentation	20	20		19		1		10	9	1	8	2		
Shoulder Presentation								7	7		5	2		
Forceps applied to the Normal Pelvis	34	34		27	3	4		6	6		6			
Forceps applied to Contracted Pelvis	13	13		9	3	1		2	2			2		
Basiotripsy	5	5		4	1									
Craniotomy	1	1		1				1	1			1		
Induction of Labor for Contracted Pelvis	2	2		2				4	4		4			
" " other causes	3	3		3				10	10		5	4	1	
Symphysiotomy	3	3		2	1			1	1		1			
Ischio pubiotomy								5	5		5			
Version by external Manipulations	1	1		1				10	10		7	3		
Extra-uterine Pregnancy (oper. 7 mo.)	1	1		1	2			26	26		24	1	1	
Twin Pregnancies	10	10		8	1	1		6	6		3	2	1	
Death of fetus in utero	20	20		19				971	968	3	856	76	39	
Menstrosities														
Total	863	858	5	732	73	58								

| Infant's Histories. | No. of Births. | | |

Fiessinger draws the following conclusions:

1. There exists a form of scarlatina in which the fever may be entirely absent (below 38° by the rectum) or in which it may assume a number but slightly elevated, and that in an essentially transitory manner (by the rectum 38° to 38½°).

2. This form of scarlatina is observed in the same epidemic and alongside of the grave and pyretic forms; it is contagious and may give rise to the ordinary scarlatina complicated with Bright's disease, or with a pseudo-membranous angina.

3. There is no local sign to differentiate the apyretic from the ordinary scarlatina; the angina, the eruption, the desquamation are the same in their aspect and duration; the state of the tongue is, on the contrary, a little modified; we have not observed the raspberry tongue bristling with papillæ so peculiar to the ordinary scarlatina.

4. The pulse is not always accelerated in the apyretic scarlatina.

5. That which characterizes the apyretic scarlatina is the absence of general phenomena. Save the nights which are at times broken, the patients do not seem to suffer and are happy.

6. The diagnosis from certain scarlatinoid erythemata is very difficult; it is a question whether the same germ, infectious in different degrees of virulence, does not produce both these erythemata and the classical scarlatina.

ABSTRACTS.

THE REMOVAL OF THE GRAVID UTERUS BY ABDOMINAL SECTION.

Dr. More Madden, having in a former volume of the Transactions of the Royal Academy of Medicine in Ireland, reported a case in which he had been obliged to remove the gravid uterus, now in the present communication submitted the notes of a recent case of the same kind, together with some general observations on such operations.

In the last case referred to, in which he was compelled to perform a Porro-Müller's operation, the patient was a woman aged thirty-two, two months pregnant, and of well-marked carcinomatous cachexia, suffering from a fast-growing uterine tumour, which, from the intense suffering it occasioned, the rapidity of growth (it having so developed from the time it was first recognized, only three months previously, so as to fill the abdominal cavity, and cause such dyspnœa as to prevent her sleeping save in a sitting position) as well as from the extreme emaciation and characteristic cachexia, was diagnosed as probably malignant. The symptoms being most urgent, and the patient being apparently *in extremis*, it was decided as a forlorn hope to give her whatever chance the amputation of the uterus might afford. From the time of her being brought into the hospital until she was placed on the operation table the patient was in a condition of extreme prostration from loss of rest, continual pain, and inability to take food, and was apparently kept alive by the free administration of stimulants. In that operation, which was performed on April 10th, 1893, he had the assistance of his colleagues, Drs. Leutaigue and Coppinger, and Dr. A. Smith, of St. Vincent's Hospital. The enormous tumour here shown, growing from the fundus was partially gangrenous, and owing to extensive adhesions there was considerable difficulty in its removal and in the ligation of the ligaments. The operation was, therefore, necessarily prolonged; and though she recovered from the immediate shock, and for a couple of days gave hope of recovery, she was then attacked by peritonitis, and sank rapidly.

The excision by abdominal section of the gravid uterus, which is generally known by the name of the operator, Professor Porro, of Pavia, by whom it was first successfully accomplished in 1879, though previously performed by Dr. Storer, of Boston, was originally designed as an obstetric operation in lieu of the Cæsarean section. It has been subsequently considerably modified and im-

proved by Fruend, of Breslau, and Müller, of Berne, to whose operation, with several further modifications, More Madden has resorted to in three cases of pregnancy complicated by urgent symptoms arising from malignant, or supposed malignant, disease of the fundus or body of the uterus.

The mortality of Porro's operation under the most favorable circumstances, that is, in obstetrics where the condition of the uterus is presumably a normal one, has been 56 per cent.; hence the results in these three cases of removal of uterus for such disease as existed in all these cases—namely, two deaths, and one recovery, being a mortality rate of 66.6 per cent., considerably less than that of Freund's operation—are by no means exceptionally unfavourable when we consider the circumstances of thes cases and the condition of the patients so operated on, as the last possible chance of relieving suffering and prolonging life in cases apparently otherwise beyond hope. At the same time More Madden thinks it only justifiable to perf m such operations, as was the case in the three instances above referred to, as a *dernier ressort*, in compliance, and with the entreaty of a patient fully aware of all the risk of the procedure and beyond other methods of relief.

Finally, in this connection, it may be added, that in obstetric practice, for which primarily designed as a substitute for Cæsarean section, there can be no ground now-a-days for recourse to either Porro's operation, or any of its subsequent modifications. Within the last few years, owing mainly to the improvements effected by Professor Sanger, of Leipsic, and also, and above all others, by Professor Murdoch Cameron, of Glasgow, the Cæsarean section (More Madden's first case of which was reported in "The Dublin Practice of Midwifery," published twenty-one years ago) has been robbed of its former terrors. No triumph of modern abdominal surgery has probably been equal to that which has taken place in the accomplishment of this operation by the method of Cameron, by whom the Cæsarean section has been performed in twenty cases with only two deaths, being a mortality hardly greater than that generally obtained in ordinary ovariotomy. With that method thus available, and with the exceptional experience of Cameron to guide us, it is, Dr. More Madden thinks, therefore evident that we would no longer be justified in obstetric practice in resorting, whether by Müller-Porro or any other method, to an operation so terribly fatal as the removal of the gravid uterus has always proved and must always remain.

Dr. Lane would like to know could Dr. More Madden assign any cause for this rapid growth in what would appear to be a monster fibroma.

Dr. Tweedy asked if he had any reason to believe that the disease was confined to the uterus, and had not spread to the surrounding tissues. He did not see the necessity for washing out the abdominal cavity if nothing had got into it. If the blood has ceased, and if the clots have been taken away and asepsis assured, he did not see the use of a drainage-tube; it often ended in a fæcal fistula.

The President said that Dr. More Madden appeared to think, from the constitutional symptoms present, that it was a case of malignancy. But then the woman was only thirty-three years of age, and there was no matting of the tissues, no disease of the cervix uteri. Another remarkable coincidence was the absence of ascites. The late Dr. Stokes always laid down that in such cases ascites was a sign of malignancy. The difficulty, to his mind, was how to account for the sloughing of the tumour. He thought that they must bow to the pathologists and agree with them that it was a large fibroid of the uterus. With regard to the choice of operation, he would be more inclined to the ideal operation—*i. e.*, removal of the uterus complete. He did not see the advantage of the drainage-tube.

Dr. More Madden, in reply to Dr. Lane as to the nature of the tumour, he (Dr. Madden) bowed entirely to the decision of the pathologist to the hospital, Dr. M'Weeney, but, at the same time, he ventured to think that before abdominal section any man might be justified, from all the symptoms—the extremely rapid growth, the constitutional cachexia and incessant local pain—in diagnosing it as malignant. As to washing out the peritoneal cavity, he must say that when the operator's hands, and possibly the hands of the assistant, have been introduced into the peritoneal cavity, he very much preferred washing out the cavity, because no amount of wasing of hands can possibly

prevent the risk of septic infection. He was not aware of any means of sterilizing the atmosphere in the operating room, and therefore he thought washing out a wise precaution, and he would always continue to do it. He did not like the drainage-tube much, but in a large operation such as this one, and where there was the slightest danger of septic contamination, he thought they could not take too many precautions. They could also, if that should subsequently become necessary, wash out the peritoneal cavity through the tube.

SOME OTOLOGICAL DON'TS.

That the ear is more sinned against by acts of commission than of omission in the treatment of its diseases, says Dr. Chas. M. Shields, is a statement that will be agreed to by most specialists, and may serve as an excuse for the negative title of these remarks.

Firstly. *Don't syringe the ear except for a purpose.* That is, do not use the syringe on general principles with every patient that complains of his ear, but restrict the use of the instrument to its legitimate purpose of removing extraneous matter such as foreign bodies, wax, pus, etc.

It is too often the case that patients are directed to syringe their ears because it is easier to give such advice than to make a diagnosis. Warm water is not a panacea for all diseases of the ear, and it is as important to make a diagnosis here before applying remedies as it is in the treatment of other organs.

Should the family physician not always have an ear speculum and mirror with him, a truncated cone of stiff paper will answer for one and an ordinary hand-glass for the other. With their aid, and, after the auditory canal has been cleansed by the proper use of warm water, it can be determined whether the syringing can appropriately be continued for the removal of products of suppuration, or as the medium of conveying antiseptic agents to the parts, or for the poultice-like effect of the hot water; or whether its continuance would not rather do the harm that not infrequently results from its softening and soddening effect upon the drum and other tissues. Eczema, for which the auditory canal is such a favorite site, is confessedly made worse by the application of moisture, and yet I suppose that out of every twenty such cases that I see, syringing has been suggested in nineteen of them. In long-continued inflammations of the walls of the auditory canal and the drum, unless there are discharges to be removed, the constant use of water soddens the tissues and makes them an easier prey to inflammatory processes.

Secondly. *Don't use instruments to remove foreign bodies from the ear until the syringe has failed.* The ingenuity that has been displayed in inventing instruments for the removal of foreign bodies from the ear is worthy of a better cause. A well-directed stream of warm water will accomplish the desired result in the vast majority of cases.

Not with the so-called ear-syringe, however, that is commonly sold in the drug stores, that has its end rounded into a bulbous extremity, which effectually prevents your directing the stream to any particular place; but with an instrument that will hold at least four ounces and that has a long tapering nozzle which will permit you to throw the water along the wall of the auditory canal which permits its easiest flow behind the foreign body.

Some of the suggested appliances have been of the gimlet order, and, while being screwed into the foreign body, pushes it through the drum. A form of lever in the hands of an experienced person is often an effective and safe instrument, but if carelessly used may do great damage to the walls of the canal. While slender forceps are useful when the object to be removed is not large, they are useless when most wanted because of the lack of space for their introduction between the foreign body and walls of the canal. Where the syringe fails, perhaps the most satisfactory and safe instrument is a loop of silver wire gently insinuated around the foreign body.

Thirdly. *Don't consider and speak of all pain in the ear as a neuralgic earache.* Are not physicians largely responsible for

the laity considering inflammatory pain in the ear as a neuralgic earache? Ninety-nine per cent of our patients so describe it. As we all know, the fact is that nearly all pain in the ear means *inflammation* there—acute, catarrhal, or purulent inflammation of the middle ear that may rupture the drum, impair hearing, or extending into the mastoid, result fatally. Or else inflammatory processes in the auditory canal that, while not serious in their results, are usually attended by several days of acute discomfort.

Pain in the ear is rarely neuralgic in character, and is no more properly described as *ear-ache* than would be gastritis as gastralgia or peritonitis as belly-ache. This misnomer often lulls the patient into a false sense of security that is only dissipated when he discovers that he has a resulting ruptured drum, and that his hearing is permanently impaired.

Fourthly. *Don't prescribe sweet oil for pain in the ear.* In the first place, it does no good. The sense of comfort which may follow the use of any warm liquid poured in the ear may be obtained just as well by a harmless one.

Sweet oil or any vegetable or animal oil may undergo decomposition and make favorable soil for the growth of aspergillus or other vegetable fungi which may be most destructive to the organ. Then it gums up the canal and interferes with examination subsequently.

Fifthly. *Don't lose sight of the fact that the auditory canal and external surface of tympanum is not an absorbing surface.* If you do, you will often be disappointed in the effect of agents prescribed to be dropped in the ear. The lining of these parts being a continuation of the skin does not possess the absorbing properties of mucous membranes, and agents are sparingly, if at all, taken up. If there bf an exception it is with the combination oe atropia and cocaine—one grain of the former and six of the latter in two drachms of water. This should not be used, of course, where a perforation of the drum is known to exist or where an otorrhœa would suggest a perforation, as an excessive quantity might find its way to the throat through the eustachian tube. Six or eight drops of this solution instilled warm into the ear often relieves pain to a marked degree. As a rule, however, absorption of remedies in the auditory canal is so limited as to make their use very unsatisfactory.

Sixthly. *Don't tell your patient that it is dangerous to stop an otorrhœa.* This injunction would seem an unnecessary one were it not for the fact that scarcely a day passes that some patient does not give as an excuse for the neglect of an otorrhœa of years' duration that his doctor told him it would be dangerous to stop it. As well consider it dangerous to stop a gonorrhœal flow or a leucorrhœal discharge!

Purulent discharge from the middle ear means the continuance of inflammatory action there with the resulting damage to the parts and the added danger of extension into the mastoid process.

To neglect to treat the cause of an otorrhœa is not only to sacrifice the sense of hearing without an effort, but in endangering life, as is evidenced by the refusal of life insurance companies to accept as risks individuals having a chronic discharge from the ear.—*Practice.*

THE TREATMENT OF GANGRENOUS INTESTINE.

In a certain proportion of cases of strangulated hernia the bowel is found in a gangrenous condition, and the treatment of such cases in the past has practically been limited to relieving the constriction and to the creation of an artificial anus. The mortality under these circumstances is very considerable, in fact, the discovery of gangrenous intestine has hitherto been looked upon as an indication of the hopeless nature of the case. Judging from a paper read by Dr. Kendal Franks before the Medical and Chirurgical Society, these cases are not as hopeless as statistics would lead one to infer. He urges with some show of reason, basing his conclusions on a tolerably extensive array of statistics, that resection of the gangrenous gut with immediate suture affords the patient a much better chance of recovery. Nor was this conclusion seriously questioned by the experienced surgeons who

had assembled to hear what the author had to say on behalf of a procedure that certainly strikes one as severe, considering the usually very depressed condition of such patients. The discussion turned mainly on the question as to whether the operation should be completed on the site of the original wound made for the relief of the femoral or inguinal hernia, or whether, after the preliminary palliative measures, it should be performed through a median abdominal incision made for the express purpose. Opinion on the whole was in favour of the resort to abdominal incision, and this is probably the view that will commend itself to most unprejudiced surgeons. It is evident that the thoroughness of the examination of the gut and the freedom of manipulation could never be the same through such a small aperture as that afforded by the inguinal or the crural canal, apertures, moreover, which cannot be safely enlarged. By this procedure the mortality has been reduced from something like 95 to about 56 per cent., a brilliant enough achievement considering the very unfavourable circumstances under which it is necessarily undertaken. One point that came out very clearly in the discussion was the impunity with which relatively considerable lengths of gut can be removed. One case was mentioned in which over a yard had been removed, and this without interfering with the recovery of the patient. It is indeed all important to remove every inch of damaged tissue, otherwise no suture, however perfect, can be relied upon to hold. A very large proportion of the failures after enterectomy are attributable to non-compliance with this salutary rule, and it cannot be too strongly impressed on surgeons that the kind of suture is of far less importance than the fact of its being applied to healthy tissue. There must, of course, always be cases which come under treatment at such a late period that nothing can be done. These "too late" cases are the operator's horror, for they weigh down on the statistics with an unduly large proportion of fatalities, although death has really nothing to do with the operation *per se*. Dr. Franks has called attention to a means of rescuing a certain proportion of patients otherwise condemned to inevitable death, and he has succeeded in divesting gangrenous intestine of half its terror.—*Med. Press and Circul.*

NEURALGIA.

Dujardin-Beaumetz writes: A most interesting study, even from a practical or therapeutical standpoint, is that of the true seat of neuralgic pain. The entire subject can be reduced to a single question. Is the pain of the different forms of neuralgia really originated at the very spots at which the patients complain of it, or is it simply felt at those spots as though it arose there, in the same way, for instance, as patients who have undergone amputation of a limb, still complain of pain in the stump although the limb, which was the seat and sole cause of their suffering, has been removed?

The former hypothesis seems probable *a priori*, and has given rise to the so-called peripheral theory of neuralgia; but a number of neuropathologists, and among them some very eminent men, defend what is known as the central theory of such suffering. Although there can be no doubt that the latter theory is not applicable to all cases, still it accounts for the greater number of them, and is based on arguments that are well fitted to carry conviction, and of which the principal ones are the following:

When the nerve has been completely severed, as is sometimes done in cases of neuralgia that defy all treatment, it is not uncommon to find the pain going on unchanged after the operation; it could not, therefore, have had a peripheral origin.

Just as no one disputes nowadays the existence of nutritive disorders in hysteria, in the same way no one can deny that in certain forms of neuralgia, without neuritis, the same kind of disorders may arise. Now, is not the most rational way of explaining these disorders that of granting the central theory of neuralgia? Under these circumstances it is easy to see that the morbid irritation extends from the original nucleus of the diseased nerve to the original nuclei of the neigh-

boring nerves, which will manifest their implication by creating nutritive disorders *loco dolenti.*

In the third place, a number of diatheses, and in certain altered conditions of the blood, give rise to neuralgic pains, unless we admit that the spine is affected primarily, how can we understand why these diatheses and modifications of the blood should affect one nerve more than another, and, in some cases, only a few centimetres, or even millimetres, of a given nerve?

Fourthly, it is known that neuralgic pains are connected very closely in different ways with hereditary neuroses. Now, the latter are undoubtedly localized in the nervous centres; how, therefore, could their effects be other than central?

The theory of the central seat of neuralgic pains explains most satisfactorily, (and is the only theory that does so) the way in which such pains jump from one spot to another, alternate from one side to the other, and pass rapidly from this nerve to the next. We know how near to each other in the spinal cord are the original threads of the different nerves, and can consequently understand with readiness how the painful irritation of one nerve can extend with the greatest ease to its neighbor in the spinal cord.

After all, the daily practice of medicine supplies the central theory of neuralgic pains with a decisive argument. It is a matter of common occurrence that cases of neuralgia of the trigeminal, sciatic, or superficial nerves, that have stubbornly resisted the action of various local anæsthetics and different forms of counter-irritation, disappears as if by magic after only a few days' use of bromidia. This extraordinary result is readily explained by the well-known physiological effects of the active elements of bromidia. Purified brom. potass. and chloral, cannabis indica, and hyoscyamus; for it must be remembered that they act on the cerebro-spinal centres. — *Bulletin General de Therapeutique,* Paris.

PROFESSOR LIEBREICH ON MINERAL WATERS.

The *British Medical Journal* reports that in a paper on Artificial and Natural Mineral Waters, read by Professor Oscar Liebreich at the Balneological Congress recently held in Berlin, he began by asking:—Is chemistry sufficiently advanced yet to produce artificial mineral water equal in all respects to the natural water? The answer is negative. The artificial production of mineral waters is a much more difficult matter even than the production of alizarine, indigo, &c., and the analyses even of the most renowned analysts, fall short of the full contents of the water. In the natural mineral water, on evaporation, there is always a residium which is not contained in the analyses of the artificial mineral waters. The carbonic acid gas which furnishes the effervescence of natural mineral water exists also in the form of "carbonic acid hydrate." This has been inferred from the existence of another combination derivative from it, namely, carbonic acid ethyl, which is probably contained in champagne and in other alcoholic effervescing drinks, and is known for its agreeable taste. It may be supposed that the action of an hydric carbonic acid gas is different from that of carbonic acid hydrate. "Even the best manufactured mineral waters," Professor Liebreich points out, "differ from the natural ones in taste and value; this difference it is not easy to explain." He concludes by observing that, "As to the so-called 'indifferent springs, it is a mistake to speak of them as of minor value." It must be remembered that they, too, contain mineral ingredients, if only in minimum quantities, which counteract the effects of perfectly pure distilled water. Even hydropathy is a mineral water treatment, for if the water used were without traces of mineral substances it would be poisonous. This has been sufficiently proved elsewhere.

Hard to Please.

Buyer.—"This dosen't seem to be a very good fit."

Dealer.—"Vot do you egspect for two tollars and a helluf? An attack of ebilepsy?"—*Brooklyn Eagle.*

SELECTED FORMULÆ.

Abscesses.

℞ Calcii sulphidi..... gr. i
Sacchari lactis..... gr. x
Misce et fiant chartulae..... No. x
Sig.—Take one powder every two hours.

—Riger.

Alcoholism (Chronic).

℞ Tincturae capsici.....
Tincturae zingiberis.....āa ʒi
Tincturae valerianae ammo...
Tincturae gentianae comp..āā ʒii
M. Sig.—Take a desertspoonful in a teacup of hot tea three or four times a day.

—Gerhard.

Pruritus of the Vulva.

Meisel makes use of the following lotion:

℞ Potassium bromide,
Lupulin.....āā ʒss
Calomel..... ʒiiss
Olive-oil..... fʒj

—Deutsch Med. Wochenschr.

Fissures of the Tongue.

℞ Acidi carbolici..... ʒss
Tr. iodi,
Glycerinae.....āā f ʒiij
M. Sig.—Use locally.

—Med. Bull.

Fissured Breast.

Dr. Behren makes use of:

℞ Ichthyol..... ʒj
Lanolin.,
Glycerini.....āā ʒi¼
Olive-oil or oil of sweet almonds.... mxv

—Therap. Gazette

Chronic Eczema.

Dr. Jaquet orders:

℞ Yellow oxide of mercury..... gr. vii-xv
Oil of cade..... mxv-ʒj
Pure vaselin..... ʒv

—Prescription.

Vaginismus.

The following is recommended by De Sinety as affording relief in obstinate cases of vaginismus:

℞ Thymol..... gr. iij
Ext. belladonnae..... gr. xij
Potassii bromidi..... ʒss
Ol. theobromae..... ʒiv
M. et ft. suppositoria no, iv.
Sig.—One suppository, as needed.

—N. Y. Med. Record.

Soothing-syrup without Opium.

℞ Oil anise..... mxxv
Alcohol..... ʒij
Fl. ext. valerian..... ʒj
Oil peppermint..... mxv
Tinct. camphor..... ʒij
Fl. ext. licorice..... ʒj
M. Sig.—Shake the bottle. Dose, ¼ or ½ teaspoonful in water; repeat as needed.

—Med. Age.

Hiccough.

Dr. J. W. Allen, of London, recommends:

℞ Olei succini ver.,..... ʒss
Liquor potassae..... ʒj
Tinct. camphor comp.,..... ʒiv
Mist. acaciae..... ʒij
Aq. menth. pip.,.....ad ʒvj
M. Sig.—One-sixth every two hours.

Two doses usually succeed. — *Quarterly Therapeutic Review.*

For Exophthalmic Goitre.

℞ Ferri et quininae citratis..... gr. xxx
Tincturae digitalis..... mxxx
Tincturae chiratae..... ʒiss
Aquae.....ad ʒvj
M. Sig.—A sixth part three times daily after meals.

—Med. Record.

Food for infants, (in use at the Children's Home, Philadelphia Hospital).

Russian isinglass 2 inches square allowed to dissolve over night in ½ tea cup of cold water, to this add one pint of milk and boil, then add one drachm of arrowroot and one ounce of cream.

Epistaxis, (in Anæmic Cases).

℞ Strychnine sulphatis..... gr. ¼
Tincturae ferri chloridi..... ʒij
Vini ergotae..... ʒss
Elixiris simplicis..... ʒiss
Aquae destillatae.....qs. ad. ʒvj
M. Sig.—Take a tablespoonful 3 times a day.

—Lombe Athill.

Epistaxis, (in Plethoric Cases).

℞ Tincturae aconiti radicis..... mviij
Liquoris ammonii acetatis..... ʒi
M. Sig—Take a teaspoonful every half hour.

—Thomas.

Epilepsy, (to Prevent Nocturnal Fits.)

℞ Choralis hydratis..... ʒ ss
Syrupi simplicis
Aquae destillatae..... āā ʒii
Misce et fiat haustus.
Sig.—Take at bedtime.

—Da Costa.

Epilepsy.

℞ Amonii bromidi,
Potass iodidi.....āā ℈viij
Potass bromidi..... ʒvj
Sodii bicarbonatis..... ʒij
Tincturae calumbae..... ʒij
Aquae destillatae..... ʒvi
M. Sig.—Take a desertspoonful after each meal, and tablespoonful at bed time.

—Brown-Sequard.

Dysmenorrhœa.

To restore the menstrual flow after suddenly checked:

℞ Tincturae opii deodorate..... ʒii
Extracti cimicifugae..... ʒ ss
Syrupi simplicis..... ʒx
M. Sig.—Take a teaspoonful every three or four hours.

—Ringer.

Enteritis.

℞ Liquoris potassii arsenitis.. ..... ℥ss
Tincturæ opii deodoratae..... ℥i
Tincturae calumbae..... ℥iv

M. Sig.—Take a desertspoonful every two or three hours.

—Martin.

Diabetes.

When gluten bread is used the following formulæ is useful to make up the deficiency in phosphates:

℞ Calcis phosphat..... gr. iij
Magnes. phosphat..... gr. ss
Potassii phosphat..... gr. iv
Ferri phosphat..... gr. ss
Acid phosphoric (60 per cent)..... m vj⅝
Aquae ..... qs. ad. ℥i

M. Sig.—One dose, to be taken daily well diluted.

— William Pepper.

Treatment of Pain in Eye-disease.

When the pain is of corneal origin, Dr. E. Jackson employs one of the two following solutions:

℞ Neutral sulph. atrophine,
Muriate of cocaine.....āā gr. j
Distilled water..... ℥ij

M. Sig.—Instill one drop of this solution into the eye every four to six hours.

℞ Sulphate of eserine..... gr. ⅛
Muriate of cocaine..... gr. iss
Distilled water..... ℥iv

M. Sig.—Instill a drop into the eye every four to six hours.

— Western Med. Reporter.

Ingrowing Toe-nail.

℞ Muriatic acid,
Nitric acid.....āa ℥j
Chloride zinc..... ℥j

M. Sig—Apply 1 drop to the affected part once a day. This gives instant relief to the pain caused by ingrowing toe-nail.

—The Prescription.

Bright's Disease.

In threatened uræmia Professor Da Costa recommends:

℞ Caffeinae..... gr. ij
Sodii benzoatis..... gr. x
Syr. aurantii..... q. s.
Aq. destil.,.....ad ℥ij

M. Sig.— Take 1 ounce every four hours, largely diluted in water.

Coll. and Clin. Record

Dressing for Abdominal Operation Wounds.

Dr. Howard A. Kelley, of Baltimore, uses:

℞ Squibb's ether, or washed ether, and alcohol, absolute..... eq. parts
Bichlor. of mer. (Merck's recryst.), enough to make the solution..... 1-16,000.
Anthony's snowy cotton..... enough to make a syrupy consistence, added in small pieces, stirring.

As soon as this is poured over the wound evaporation begins to take place at once, and the celluloidin hardens, gumming the gauze ast to the skin. To avoid delay in waiting for this to grow quite hard, and to prevent adhesion to the cotton applied above it, the whole surface is freely dusted over with a finely-powdered mixture of iodoform and boric acid:—

℞ Pulvis iodoformi..... ℥j
Acidi borici..... ℥vij

M. Exactissime
Sig.—Dust freely on wound.

This powder is of itself an invaluable protective. He uses it constantly in obstetric cases, separating the labia and throwing it into the vagina, where it acts as a guard to the vaginal outlet against septic invasion from without.

—Am. Jour. Obst.

Battery Fluid.

℞ Potass bichromat..... ℥iij
Aquae..... ½ gal.
Acid sulphurici..... ℥ vj ss

Allow to stand six hours before using.

—Ex.

Battery Fluid.

Dissolve 1½ ounces of Bichromate of Potash in twenty-four ounces of hot water and add ¾ ounces of Saltpetre —let this cool, then add 3 ounces of Commercial Sulphuric Acid, cool again and add a solution of ¼ ounce of Bisulphate of Mercury in 3 ounces of cold water. This gives Oij of fluid. Do not use until cold.

— W. H. Bricker-

Dysentery, (in Chronic Dysentery).

℞ Cupri sulphatis..... gr. j
Pulveris opii..... gr. iij
Quininae sulphatis..... gr. xxiv
Misce et fiat pilulae..... No. xij
Sig.—Take one pill 3 times a day.

—Joy.

Dysentery, (in Acute Dysentery).

℞ Cupri sulphatis..... gr. ss
Magnesii sulphatis..... ℥i
Acidi sulphurici diluti..... ℥i
Aquae destillatae..... ℥iv

M. Sig.—Take a tablespoonful every 4 hours.

—Bartholow.

Mercurial Stomatitis.

Dr. Feibes regards dentifrice powders and gargles as the best means of preventing mercurial stomatitis during a "course" of mercury. He uses the following powder as a dentifrice:

℞ Cretae preparat..... grms.xxxij
Potass chlorat,
Corticis cinchonae rubrae.āā grms.xvj
Ratanhiae..... grms x
Sapon. medical..... grms.xxiij
Essent. menth. piperit..... grms.iij

M.

As a gargle he employs:

℞ Alumin. acetat..... grms x
Aq. destillat,
Aq. flor. aurantior.....āā grms.cc

M.

If the gums become senistive they may be sponged three times a day with:

℞ Tinct. myrrhae,
Sinct. nuc. gall.,
Tinct. ratanhiae.....āā grms.v

M.

—Med. Review.

CURRENT LITERATURE REVIEWED.

THE OPHTHALMIC REVIEW

For March has an original paper by John B. Story, on

Cases of Glaucoma in Young People.

As primary glaucoma before middle age is of such rare occurrence, the five cases reported are of more than ordinary interest. The patients ranged from 13 to 35 years of age. "The first case is not one of primary glaucoma in the strictest sense of the term" Case 1—"Acute glaucoma after subconjunctival injection of cocaine in a girl of 13." The patient was suffering from convergent strabismus and hypermetrophia. In May, 1890, the tendon of the right internal rectus was divided under cocaine anæsthesia, the pupils at the time being widely dilated by atropine used some hours previously. About two hours after the operation she was attacked with acute glaucoma, intense pains and photophobia. Frequent instillations of eserine in about two hours reduced the tension to normal, the pupil was contracted to about half its former size and all pain was gone.

About a month later the left internal rectus was tenotomised, and although no atrophine was used, and two minims of eserine were instilled at the time of the operation an exactly similar attack of acute glaucoma occurred in this eye about two hours after the operation. It took 4 m. of eserine every quarter of an hour to cure this attack of glaucoma which lasted for one hour. Case II. "Chronic inflammatory (?) glaucoma in a woman of 18." When first seen in March, 1890, this patient had been married one month, and stated that her sight had failed subsequently, with pains in the eyes, although it was afterwards elicited that three months previously she had noticed "blue rims to lamps." It was a typical case of glaucoma. Right eye—hand reflex in temporal field. Left eye—fingers at 0.5 m. in temporal field. A large sclerotomy was performed upwards in each eye, and two days afterwards T. which had been T.+2 in both eyes was reduced to T.n. When seen two years later the patient's vision in right eye was about the same as before the operation, but with the left she could count fingers at 2 m. and decipher Wecker's type No. 8. Case III. "Acute glaucoma of one eye in a woman of 35." Case IV. "Chronic inflammatory glancoma in a man of 30." This patient lost the sight of his left eye every evening. At the time of being seen Nov. 16, '892, left eye V=5/10? whilst right eye √=5/5. His mother had noticed his left pupil getting big at the time when his sight grew dim. He had very shallow anterior chambers, and quite microphthalmic looking eyes; corneal diameter =11 m. m. R and L Tn R and L., as also fundus. Venous pulsation in left disc. Ordered boric acid and nitrate of pilocarpine. On December 3rd, he returned to say that he was then suffering an attack—the second since using the pilocarpine, which had evidently done good, as the attacks vere previously of daily occurrence. Left pupil was wider than right T+2. The left fundus exhibited both venous and arterial spontaneous pulsation. The larger arteries pulsated both on the disc and for some distance also in the surrounding retina. On the next day, after using eserine the previous night, the pupil was contracted, the tension was normal and the symptoms of colored haloes round lights and dimness of sight had quite disappeared. The pupil was too small for thorough ophthalmoscopic examination, but so far as could be seen no pulsation was present in the retinal vessels. On Feb. 1, 1893, the patient presented himself with an attack of a novel description. He had had no attack Dec. 3, 1892 and had used pilocarpine drops daily till January 30, when he forgot to put them in. That night he got an attack, in his opinion, exactly like the one of Dec. 3, but it continued unabated except in one respect, that the pain which marked its commencement had subsided. The eye (left) had a zonular vascularity; dilated pupil; V=5/30. Disc slightly hazy, but cornea clear with no keratitis punctata; very shallow anterior chamber, no visible pulsation, and to Dr. Story's astonishment, T—1. Next day V rose to 5/15 but T remained —1. On March 6th, the patient had another distinctly glaucomatous attack with +T 1, venous and arterial pulsation, dilated pupil and keratitis punctata. He was advised to submit to iridectomy. Case V. "Chronic inflammatory glaucoma in a man aged 34, associated with keratitis punctata." When first seen on Dec. 3, this patient complained of a fog before his right eye and a rainbow halo around light V=5/15 T+1 whilst left eye had V=5.7.5. T n. In this case eserine was used for several weeks with evident improvement, but soon after the myotic had been discontinued he had two relapses and on January 14th, an iridectomy was performed upon the right eye. Six days after the operation, the eye was practically well, when unfortunately, during his sleep, the patient let his hand fall upon it, and he awoke with intense pain, to find the eye completely blind. The wound had been burst open and the anterior chamber was filled with blood clot T+1. In a fortnight all trace of blood had disappeared. T n. media clear; V=5/50; after another week V+2 D cyl=5/10 T n.

In his comments upon these cases the author remarks :—"Priestly Smith regards a narrowing of the circumlental space as the underlying cause of glaucoma, and the determining conditions may be either abnormally large lens, an abnormally small ciliary region, or an abnormal enlargement of the ciliary processes. It is unlikely that an abnormally large lens was present in any of the causes here recorded. The age of the patients renders such a supposition im-

probable, and the only case which shows any evidence of an abnormally small ciliary region is case IV, in which the diameter of the cornea was only 11 m. m. The diameter in all the others was above the average."

This paper is followed by a report of three cases of "Congenital Ptosis with associated movements of the affected lid," by Walter N. Sinclair. The writer says: "Some fifteen cases only of this curious condition are on record, and it will be noted that all these three cases agree in the following particulars: (1) There is congenital Ptosis. (2) The *left* upper lid is affected. (3) While the eyelid cannot be voluntarily raised, it moves upwards freely when certain of the masticatory muscles are thrown into action." This is followed by a very able abstract of an important article covering more than 200 pages of Von Grafe's Archiv., by O. Schirmer (Halle) entitled "A clinical and Pathological study of the Pathogenesis of Sympathetic Eye Inflammations." After an exhaustive condition of the exciting causes of sympathetic eye inflammation the author seems decidedly to favor the theory that the inflammation is due to "bacterial migration" and not to "nerve irritation." A direct migration from the one eye to the other appears to be the probable course. "Whether the path lies along the optic nerves or through some other channel or through both, remains uncertain." Our author considers that an eye which is blind, and which is in the condition to excite sympathetic inflammation should be exercised without waiting for any sign of sympathetic irritation; "or if sympathetic inflammation has already broken out, the exciting eye, if blind, should be removed." "If the sympathetic inflammation breaks out while the exciting eye still retains some vision, the exciting eye must not be excised." "The sympathetic inflammation itself appears to be best influenced by sweating, mercurial inunction, warm compresses, darkness, atropine, and absolute rest of the eye." This number of the *Review* concludes with a reference to Uhthoff's paper "On the Anatomical changes underlying the Ocular disturbances of Cerebral Syphilis."

THE CANADIAN PRACTITIONER

for May contains a paper by E. Herbert Adams, M. D., D.D.S., on

Alveolar Abscess.

In regard to the diagnosis, it is easy in most cases but in some forms it seems to be a matter of difficulty for the general practitioner. The author reports several cases which were mistaken for diphtheria, carbuncles, strumous enlargement, etc.

A simple means of testing whether a tooth is abscessed is by rapping the tooth with an instrument. If it should prove tender on pressure, the apical pericemental membrane is inflamed, and the root of the tooth probably abscessed.

Abscesses most frequently occur on teeth with dead pulps. In such teeth the natural translucence of the tooth is gone, the dentinal tubuli being filled up with dead matter, due to the disintegration of the pulp. The dark color and opacity is often very marked, but is occasionally so slight as to escape notice. If, however, the patient is placed in the sunlight and the rays of light reflected on the teeth by means of a mirror, a slight opacity will be noticed.

The patient's notice is often directed to a painful tooth as a possible cause of the trouble, but it must be remembered that neither a decayed tooth nor pain need necessarily be present. The pulp may have died from some other cause, and the diagnosis can be made by the opacity of a tooth and its tenderness on pressure.

The *treatment* is comparatively simple in most cases, and consists in the evacuation of the contents of the pus cavity, and in injections of antiseptics until it is rendered thoroughly aseptic.

In the more simple cases this is readily accomplished by a dentist drilling through the root canal and thus allowing an exit for the pus,and an opening through which antiseptics can be injected. It is rare, indeed, that a skilled dentist cannot successfully treat even the worst cases by this means. Of course, if the offending tooth is for any reason considered of no value, the simplest method of cure is its removal, when the abscess will, as a rule, heal without any medication.

In some cases a simple way is to drill through the alveolus, just above the root of the tooth, and thus give an exit for the pus, and an opening for antiseptic medication. If it is desirable to keep this sinus open, a simple method is to place a pledget of cotton, soaked in a strong solution of carbolic acid, in the sinus.

In acute alveolar abscess where there is much swelling of the face, it is often well to endeavor to cause the abscess to point on the buccal surface of the gum over the root of the abscessed tooth. This can often be accomplished by the application of a counter-irritant, such as capsicum or cantharidine, to the gum overlying the root of the affected tooth. A roasted fig or raisin is said also to accomplish the same result.

All applications of hot fomentations, or poultices, or counter-irritants to the external surface of the face should be religiously avoided, and if the abscess seems to have a tendency to point externally a free incision for the pus should be made *in* the mouth, and the counter-irritants or other medicaments applied *in* the mouth. This will prevent many an opening on the face, and its consequent scar.

Constitutional treatment should not be neglected where indicated. A saline cathartic will often assist in hastening the removal of an acute abscess.

The author concludes his paper with the warning not to yield to the temptation to open the abscess on the face, when it points there, on account of the resulting scar and disfigurement.

Prophylaxis is of importance in the prevention of alveolar abscesses, but this belongs largely to the domain of the dentist. It

should, however, be the duty of every physician, whenever he finds decayed or offensive teeth present in any patient, to impress on them the importance of visiting their dentist and having their teeth attended to.

Dr. Samuel Theobald contributes a paper on

Radical Cure of Stricture of the Nasal Duct,

Advocating the passage of the larger sizes of probes on account of the danger of producing a false passage by means of the smaller ones.

His method of operating is first to anæsthetize with cocaine and then pass a small probe, No. 2 usually, through the puncta, and canaliculus to look for, and finding it, to overcome any stricture at the juncture of the canal and sac. This facilitates the entrance of the probe-pointed canaliculus knife into the sac. Having slit up the canal he then passes a No. 5 or No 6 probe, or a smaller one if he fails with these. He anoints the probes with vaseline containing 10 per cent. of cocaine. Having surely entered the sac, we need not hesitate to use force in passing the stricture. He has never seen any serious consequences. Rarely he has had while using the small probes an ecchymosis of the lid, and once or twice slight inflammatory reaction. He does not think it advisable to probe daily unless compelled to do so for want of time. It may excite too much inflammation. Every other day is his custom. He increases by one number each time, skipping a number if very freely passed, or dropping back one if too tight. In two-thirds of all cases, including children, he has used a No. 16. Having reached the largest he intends to use, he then increases the intervals. The only objection he knows to the treatment is that the duct may remain too pervious and air pass freely when the nose is blown; but such inconvenience is, he thinks, very small.

In addition to probing, he prescribes collyria to be used three times a day; the most useful being a solution of bichloride of mercury 1-12000. Next to this, he prefers a solution of alum 10 grains to the ounce. He does not attack a fistula or carious bone, believing that they soon will take care of themselves if the passage is open. Patients may be taught to probe themselves with the larger probes. Strictureotomy has never appealed to him as rational treatment, nor has he ever had reason to destroy the lachrymal sac.

Under "Clinical Notes," Dr. J. N. E. Brown reports a case of

Compound Comminuted Fracture in the neighborhood of the Knee Joint: Recovery with Movable Joint.

The treatment adopted was as follows:

The wound (from which there was considerable venous oozing) was flushed out with hot water, and subsequently with 1-4000 bichloride of mercury; three large drainage tubes were inserted, and a few points of silk suture introduced. An antiseptic dressing, consisting of moist bichloride gauze with absorbent cotton was applied. An interrupted long splint, extending from the axilla to the foot, was applied, with extension.

The patient recovered with an amount of shortening less than one inch: flexion and extension are restricted, the maximum amount of movement being through an angle of about ten degrees; when extended as far as possible, the limb is not quite straight, but is nearly so; an extensive cicatrix marks the site of the original wound.

Dr. William Oldright reports "a Case of Pneumo-hæmatothorax" which followed an injury. Patient recovered.

Dr. William Crawford reports a "Case of Placenta Previa with tendency to Post-partum Hemorrhage.

THE PACIFIC MEDICAL JOURNAL

for May contains a paper by Dr. John W. Robertson on

The Keeley Cure of Alcoholism.

The author reiterates the statement, now so frequently made as to become "a back number," that the basis of the treatment is strychnia. In his investigations of the subject, he arrives at precisely the same conclusions as Dr. Chauncy F. Chapman, whose article on "The Bichloride of Gold Treatment of Dipsomania" first appeared in the *Chicago Medical Recorder* and was reviewed at length in THE MEDICAL AND SURGICAL REPORTER for March 25, 1893.

The strychnine is the remedial basis of the injection and its virtues were fully recognized long before Keeley robbed it of its ancient name and honorable connections and re-christened it under the bastardized title of "Bichloride of Gold." One-fortieth of a grain of this drug is injected four times daily. In addition there is given for internal administration a mixture the basis of which is the well-known red extract of cinchona, which was long ago vaunted as a cure for alcoholism. The author advocates the use of strychnia not only in the lighter forms of alcohol poisoning but also for controlling delirium, stating that it is superior to morphia or chloral. In concluding his article he speaks as follows:

"My experience with the treatment of alcoholism and my acquaintance with alcoholics have been large, caused by my temporary connection with the Home of Inebriates. I am free to confess that I succeeded but indifferently well in the treatment of this disease, though I used the drugs I have so highly commended. Even when treating the same patient that was afterward benefited by a gold cure course, there was an element lacking which they supplied, viz, mystery as to the drug used and a positive assurance that they were receiving specific treatment. Another reason was that patients were unwilling to spend a month in getting well, and I could not give them the desired change of air and surroundings. The first reason for my lack of success no honest man can overcome, the second could be easily obviated, but without faith it is but a temporary expedient."

"If time should prove that the Keeley system does possess some eminent merits do

not confound them with inhibitory influences. At last we are beginning to recognize the value of suggestion, hypnotic we call it, and it is this feature of the cure which may have a restraining influence on certain of the "graduates." Take away the mystery, and expose the bichloride treatment to the search light of truth, and then the value of the cure has departed and in its place stands a temporary aid and first guide in the art of curing drunkenness. With such a title no institution can flourish, for the drunkard knows his weakness, and, unaided, would never attempt to take the first steps necessary to his restoration. In conclusion I repeat that Keeley has no specific, no secret further than the secret of humbug, and if he made known his "cure" it would fall to pieces as do bones long entombed when exposed to air."

"I will match Keeley's secret as regards remedial value and scientific acumen with one I recently found in the 1601 edition of Philemon Holland's translation of Pliny: 'For to avoid drunkennesse take the lungs of an hog, be it bore or sow, it matters not, in like manner of a kid, and rost it; whosoever eateth thereof fasting shall not be drunk that day how liberally soever he take his drinke.'"

The remaining articles in this issue are The Presidential Address delivered before the Medical Society of the State of California, by Dr. W. E. Taylor; and the Report of the Committee on Obstetrics and Puerperal Diseases to the same body by Dr. Charlotte B. Brown. Antisepsis is insisted upon. The use of ergot, the report states, is more and more condemned by late writers. Hemorrhage from atony can generally be overcome by hot flushings of the vagina, or even the uterus, using a return catheter, much more promptly than ergot can act. But if this fail, the introduction of a piece of iodoform gauze acts at once and with no danger. Placenta previa having been diagnosticated, temporizing is out of place—labor should be induced at once. For the prevention of ophthalmia in the new born, the use of a boracic acid douche to the eyes is advocated.

PERISCOPE.

MEDICINE.

Infantile Paralysis.

At first, according to Dr. J. Simon, external methods are used, slight revulsion over the spinal cord about the origin of the roots of the nerves, with dry cups or application of croton oil mixed with some menstruum; or mustard leaves rather than the cautery points and the other more painful methods of vesication. Next give stimulating baths (in bed), using vapors, etc. Thirdly, sedation of the nervous system by chloral, aconite, or conium. In the second week combine electricity with tonics as follows: Galvanization by weak, continuous currents, (two to four milliamperes). Apply the positive pole by slipping it on the shoulder, and put the negative pole in a basin of water slightly salted, into which the hand is put, use this for eight to ten minutes, and notice that the positive pole does not blister the shoulder. If it gets too red reduce the strength of the battery. Later, use the faradic current as a change, but with weaker current. Slight massage and friction may be made also. Give the following:

℞

Tinct. Nux Vomica.....	15 grains.
Tinte. Colombo	1½ drachms.
Tinct. Cascarillæ.....	1½ drachms.

In eight or ten days commence an arsenical treatment by a half to one milligramme of sodii arsenias.

During convalescence use sulphur baths or salt-water baths, or sea baths, for three minutes at a time only.—*Arch. of Ped.*

SURGERY.

Intravesical Injections of an Ethereal Solution of Iodoform in oil.

In the treatment of either acute or chronic cystitis, the above method has been employed by Dr. Okev Blom, Finland, with excellent results (*Ann. d. Mal. d'Org. Genito. Urin.*)

He advocates the use of a solution consisting of one gramme of iodoform dissolved in seven grammes of sulphuric ether, to which seven grammes of olive oil are added. The oil is added to modify the irritation produced by ether on the vesical mucous membrane. This is injected into the bladder and allowed to remain as long as possible. The frequency with which the injections are given, depends on the nature of the case.

In some patients they should be given daily; and others every other day; and others only require to have the injections made once in several days.

The most marked improvement was shown in acute cases of gonorrhœal origin.

It is not claimed that this is a universal remedy for cystitis, but in abo ut eleven cases out of twelve its action is most efficient.

During the treatment the patient should abstain from alcoholics and live as much as possible upon a milk diet.

Syphilis and Wounds.

In syphilitic subjects, wounds, as Dr. G. Frank Lydston has shown, take on decidedly abnormal action. In the treatment of these cases Dr. A. C. Bernays of St. Louis has found calcium iodio and bromide (elixc. iodo-brom. calciumdemp.) of great value.

GYNECOLOGY.

Laceration of the Cervix.

Dr. Fraisse (*Nouvelles Atch. de Obstet. et de Gyn.*) holds that every delivery at term in a primapara is accompanied by a laceration of the cervix. When it is of the first degree it undergoes immediate repair, and is shown only by a transverse elongation of the os.

The first symptom of severe laceration is hemorrhage, appearing previous to expulsion of placenta and reappearing after the third day of labor is completed. The blood comes in jets, and is fluid and bright red. Dr. Fraisse formulates this statement: If the uterus is firmly contracted, and there are no external lesions, any abundant hemorrhage may be assumed to have its origin in a laceration of the cervix which extends beyond the insertion of the vagina." Such a wound greatly increases the dangers of local and general infection.

The treatment of the hemorrhage consists in pressing the cervix upward towards the symphysis by means of the left hand introduced into the posterior cul-de-sac, the right hand seizing the body of the uterus externally and maintaining it in a position of anteflexion for about ten minutes. One such maneuver is usually effective, but it may have to be repeated; should it fail, a continuous catgut suture may be at once applied.

(338) Ichthyol in Gonorrhœa.

Jadasson (*Deutsch. Med. Woch.* 1892, Nos. 38, 39) speaks highly of ichthyol for gonorrhœa in women as well as in men. In thirty-seven cases occurring in females the results of treatment were excellent. Ichthyol can readily be applied to the cervix, and also, later on in these cases, to the endometrium with an ordinary Playfair's probe covered with wool; a 10 per cent. ointment is sufficient. The probe may also be used for the urethra; a weaker preparation—from 1 to under 10 per cent—is needed. It may, however, be injected, and, in some cases, the urethra should be packed with gauze dipped in the ichthyol, and introduced through a urethral speculum.—*Brit. Med. Jour.*

ARMY AND NAVY.

U. S. ARMY FROM MAY 21., 1893, TO MAY 27, 1893.

Leave of absence for twenty-five days to take effect on or about June 5, 1893, is hereby granted Major D. G. Caldwell, Surgeon, U. S. Army.

The leave of absence on surgeon's certificate of disability, for treatment in the Army and Navy General Hospital, granted Capt. Freeman V. Walker, Assistant Surgeon is extended to June 30, 1893.

First Lieut. James Kennedy, Assistant Surgeon U. S. Army, (recently appointed), will proceed from Troy, Abbeville Co., S. C., and report in person to the commanding officer, Fort Riley, Kansas, at that post.

By direction of the President, Major John O. Skinner, will report in person to Col. Henry W. Closson, Fourth Artillery, president of the Army retiring board at Washington Barracks, D. C., when required by the board for examination by it.

First Lieut. Alexander N. Stark, Assistant Surgeon, will proceed from Norfolk, Va., and report to the Commanding Officer, Fort Monroe, Va., for duty at that post.

First Lieut. John S. Kulp, Assistant Surgeon, will proceed from Wilkesbarre, Pa., and report to the Commanding Officer, Columbus Barracks, O., for duty at that post.

First Lieut. James D. Glennan, Assistant Surgeon U. S. A., is relieved from further duty in the Department of Texas, and ordered to join his proper Station, Fort Sill, Okla. Ty.

First Lieut. Edward L. Munson, Assistant Surgeon, will proceed from New Haven, Conn., and report to the Commanding Officer, Jefferson Barracks, Mo., for duty at that post.

First Lieut. Charles E. B. Flagg, Assistant Surgeon, will proceed from Indianapolis, Ind., and report to the Commanding Officer, Presidio, of San Francisco, Cal., for duty at that post.

First Lieut. Charles Lynch, Assistant Surgeon, will proceed from Syracuse, N. Y., and report to the Commanding Officer, Fort Omaha, Neb., for duty at that post.

First Lieut. Guy C. M. Godfrey, Assistant Surgeon, U. S. Army, ordered to proceed to Fort D. A. Russell, Wy., and report in person to the Commanding Officer of that post for duty.

The World's Fair.

FINAL ARRANGEMENTS FOR THE SALE OF TICKETS VIA THE B. & O. R. R.

For the benefit of those desiring to attend the World's Fair the Baltimore & Ohio Railroad will sell Excursion tickets to Chicago and return, at all stations on its line, at low rates. Tickets will be on sale until November 1st, and will be valid for return journey until November 15th, 1893. They provide for a reduction of 20 per cent. below regular rates. These ticket will be valid only for continuous journey. Tickets at higher rates will be sold that will permit holders to stop over at Baltimore, Washington, or any other point, going and returning.

Besides the opportunity of visiting Washington, a privilege afforded by no other route, tourists via the Baltimore & Ohio Railroad will traverse the historic Potomac Valley, the theatre of the war between the States. At Cumberland they will be offered a choice of routes, via Pittsburgh, or across the Allegheny mountains, 3,000 feet above the level of the sea and via Deer Park and Oakland, the famous summer resorts. The scenery along the Baltimore & Ohio route is the most picturesque in America. Pullman accommodations may be reserved in advance of journey. For rates and information apply to nearest B. &. O. Ticket Agent, or Chas. O. Scull, General Passenger Agent, Baltimore, Md.

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ORIGINAL ARTICLES.

SAM'L G. DIXON, M. D.
Address on Hygiene. 875

CLINICAL LECTURES.

M. A. MANN, A. M., M. D.
Ovarian Cyst and Uterine Fibroid—Operation—Cure. 883

COMMUNICATIONS.

JOSEPH PRICE, M. D., Philadelphia.
Methods and Material in Abdominal and Pelvic Surgery. 886

DR. A. HERBST.
Some Reports of the Epidemic of Cholera of 1892, in City Hospitals of Altoona, Prussia. 891

E. J. KEMPF, M. D., Jasper, Md.
A Case of Pneumonia with Remarks. 894

SOCIETY REPORTS.

The Medico-Chirurgical Society of Louisville. 897

EDITORIAL

The Significance of the Black-Ball. . . . 905
The New Quarantine Law in Pennsylvania. . . 907

TRANSLATIONS 908

ABSTRACTS 909

CURRENT LITERATURE REVIEWED . . . 911

PERISCOPE

MEDICINE 913
SURGERY 913
NEWS AND MISCELLANY 914
ARMY AND NAVY 914

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THE MEDICAL AND SURGICAL REPORTER.

No. 1893. PHILADELPHIA, JUNE 10, 1893. Vol. LXVIII—No. 23

ORIGINAL ARTICLES.

ADDRESS ON HYGIENE.*

SAM'L G. DIXON, M. D.†

A few days ago when I came to reflect upon the subject selected by our able President as the one upon which I was to address you I was not a little perplexed. For me to presume to teach a learned body of Medical Doctors, such as have here congregated, regarding the most important branch of Medical Education would be unpardonable. I can, therefore, only hope by chance to refresh your memories upon a few points in Sanitary Science. As a teacher of medical students I have seen fit to divide the subject into *personal*, *general* and *public* hygiene.

Including under personal hygiene:

Inheritance,

Hygiene of various periods of life,

Prevention of mental, moral and emotional diseases,

Prevention of sexual diseases,

Hygiene of clothing,

Hygiene of occupation, etc.

UNDER GENERAL HYGIENE.

Hygiene of foods—
- Practical dietetics,
- Food adulterations,
- Food decompositions,
- Accessory foods, etc.,
  - Stimulants and narcotics, (Intemperance.)

Hygiene of water—
- Water supply,
- Potable water,
- Balneology.

Hygiene of Dwellings—
- Air, humidity.
- Lighting,
- Heating and ventilation,
- Plumbing,
- Drainage and sewerage,
- Location and soil—
  - Ground air,
  - Ground water,
  - Soil pollution.

Climatology,
Medical Meteorology,
Animal parasites (Examination of meats, etc.)
Vegetable parasites (Bacteria.)

PUBLIC HYGIENE.

Infectious diseases,
School Hygiene,
Quarantine—means of combating diseases,
Disinfection,
Hygiene of hospitals, prisons, etc.,
Vital statistics,
Legislation of public measures,
Vaccination, etc.,
Disposal of the dead.

This scheme may appear too comprehensive for a student of medicine under our present short graded courses of three years, yet, as it is not in the least too general I would be pleased to see it introduced into the curriculum of every medical teaching institution of our Keystone State, and at the same time to have its standard well protected by a learned State Board of Medical Examiners. However much I may advocate this standard in our medical schools, I can assure you that my address to you will be exceedingly short. I will not presume to air my own erudition in a comprehensive lecture on sanitary medicine, as I feel sure it would be at the expense of others who are here, I have no doubt, to teach us that which has not heretofore been known to the medical

*Read before State Medical Society, Pennsylvania, May, 1894.

†Prof. Bacteriology Acad. Nat. Sciences, Phila.

profession. To avoid inflicting tediousness upon you my fellow members of the State Medical Society of Pennsylvania and for brevity's sake, I will merely attempt to refresh your memories upon a subdivision of my comprehensive scheme of preventive medicine, which will be *air*. In considering the importance of this element to sanitary science we must recognize that man's surroundings are, and ever will be, impregnated with minute life which will, when brought into relationship with a favorable nidus, at least direct either functional or comparatively harmless pathological conditions into maladies which nature may neither exist under or overcome. Again, it would appear, so far as we can determine from artificial experimentation, that this micro-organic life can *per se*, when introduced into healthy tissues, disturb the normal affinities of the animal economy. This being admitted, we must accept the situation and prepare ourselves for war with this minute life by first building up healthy, vigorous tissues, for, the instant we permit them to drift from a normal condition they at once offer a nidus where pathogenic organisms may feed, grow, reproduce and form toxic substances which will so disturb the higher animal organic life as to cause dissolution. To grow tissue sufficiently vigorous to destroy these germs of disease as they enter the body under ordinary circumstances, we will be compelled to call to our assistance each and every hygienic measure known to man. We must enforce proper mental and moral training, suitable clothing, occupation, diet, bathing, sanitary dwellings, urban parks, proper food, vaccination and above any other one element *pure air*. However, as I have already stated that I do not intend taking advantage of the privilege granted me by this society, I must and will confine myself to the factor that above all others takes a high position in governing health and disease and at the same time the one most frequently lost sight of by both the layman and physician. The high place I give air as a sanitary factor may be severely criticized, for I do not know of any means by which we can measure the influence of isolated factors in favor of and antagonistic to the health of animal life. I will, however, for my purpose on this occasion venture to place air on a high plane, as our whole vital process is dependent upon this one element. To appreciate the importance of this, the chief factor of organic existence in relation to both health and disease, we must ever keep before us, in at least a superficial way, the physiological processes dependent upon this mechanical mixture. Animal life demands air through the organs of respiration and transpiration from the very moment it obtains an independent existence until the last act of life is performed. Parkes very truly states that starvation is a matter of days without solids, hours without liquids, but of minutes without air. We must ever bear in mind, that the air, made up of 20.96 per cent. O., 97 per cent. N., and .04 per cent. of carbon-dioxide, a strong man takes into his lungs supplies oxygen to 443,520 ozs. of blood every twenty-four hours. To obtain a full supply of oxygen for the tissues through the red blood corpuscles *all* the physiological functions of respiration must be in health, for this reason we cannot entirely overcome inherited inconsistencies. If there is any reduction in the required amount of this important constituent of the atmosphere, just to *that* degree of loss do the animal functions of the body become impaired and the moment there is an entire cessation of the supply of oxygen, life immediately goes out. It would seem that the nervous system first feels its loss; then the heart, the brain and the digestive system, etc., all become sluggish in their respective functions, the results of which are reflected upon every cell and fluid in the animal body. Physiological combustion is interfered with and consequently the required chemical changes necessary for health do not take place. The blood is loaded with debris and is thereby rendered unable to take up the waste of the tissues, but leaves it as foreign matter to undergo changes and form poisons.

Consumption of the lungs is always to be found in great excess both in man and in the lower animals, who live in such environments as compel the breathing of devitalized air, producing sluggishness of physiological action. It is under this condition that the digestive secretions are impaired and the general physiological combustion reduced so that the body becomes a habitat for germs, called pathological micro-organisms, and they, with their respective methods of digestive processes, affect a

breaking up of the already weakened affinity of the molecules forming the cells and tissues and in some way or other these organic chemical substances are toxic to animal life. The powerful effect of repeated infinitesimal quantities of these poisons, which are often albumoses, is beyond our present knowledge, yet, we have good reason to believe that they cause many chronic changes that insidiously creep upon us, while large doses of them cause death almost immediately. For instance the subcutaneous injection of blood taken from an animal with uræmia produces uræmia in the recipient. Prevention of elimination through the excretory organs will also produce the same result. Gautier and many others have thoroughly demonstrated that animal tissues in process of putrefaction and decomposition invariably elaborate certain alkaloids of very powerful toxetic properties. To-day we know that these toxic albumens are also formed during the life of the animal tissues, and are called leucomaines; any excess of the production of such substances in the animal economy, even in most minute quantities would certainly be very dangerous to health were it not for the eliminating organs. This is demonstrated by an instance just cited in which the kidneys were ligated, and the animal thus affected soon died with symptoms indicating a malady that has received the misnomer of uræmia. The production of the waste is in reality a feature of life. Dr. A. M. Brown very properly said, "Life is a contingent phenomen consisting of partial births and deaths. In the midst of life we are in death," for, scientifically speaking, it must be admitted that the living body always bears with it the components of the dead one. Life only goes on as long as the organic and inorganic work together, and to carry on their functions consistently with health, the normal quantity of oxygen must be furnished the blood in order to form normal waste. The disassimilation that results from overloading the system with debris, because of the blood being deficient in its carrying powers, often results in the production of leucomaines. Impure air often contains these toxic alkaloids that I have said are produced outside of the living tissues, and can be taken into the body through respiration. The decaying organic matter in the air in a Russian hut in the spring time after it has been occupied all winter, will, with many people, bring on nervousness, indigeston and diarrhœas and sometimes typhus fever, either directly or through the agency of minute life. I am convinced from my investigations that no one living in a normal atmosphere, performing that sort of physical exercise calculated to pump a normal quantity of air into the lungs would likely become a victim to typhus fever. Let it be a reproductive poison or not, it is, I have no doubt, favored by impure air, which not only supplies toxics formed outside the body, but also permits them to form in the tissues. If our people had a bountiful supply of pure air furnished to the lungs, we would all, even we bacteriologists, attach less importance to the disease-affecting and disease-producing micro-organisms. On the principle of resistance, man must protect himself against the deadly work of micro-organisms. We cannot directly exterminate them outside the animal body, or as yet see our way clear to overcome their pathogenic characters. If they once gain entrance and establish themselves in their human abodes it is a most difficult task to successfully battle against their action upon the tissues without overcoming the animal economy. For this reason, therefore, we must, as I have said, supply the body with its required amount of oxygen to keep up the highest degree of vitality in every member. Otherwise the secreting and excreting organs will cease to do their full quota of work and the tissues will not continue to undergo that constant regeneration that is necessary for health; the blood can neither carry nourishment to the respective organs nor in turn convey the debris to the eliminating viscera. The importance of pure air for the health of man must be apparent to us all from the fact that the very environments in which the animal kingdom has been evolved is most constant in its supply of this mechanical mixture of oxygen, nitrogen, and carbon dioxide, as they are the constituents of the very element that has permitted the present development of man and the lower animals. Without it we are *a priori* infected by the formation of leucomaines which would otherwise be prevented by normal physiological combustion. I believe we often find an example of the want of a normal elimination

of debris in children living in cities. A child, particularly one with insufficient chest expansion that has been taking considerable exercise in a badly ventilated room, will frequently suffer toward evening with what we call growing pains, and at times with a slight rise in temperature, while *the same child* when submitted to like exercise in country air, where it can obtain sufficient oxygen, will not be subject to the same painful affection. In many such cases it is quite probable that the trouble is brought about by the inability of the blood to furnish enough oxygen to the tissues and to carry away the debris and if this condition is carried on continuously for some weeks, we will have a continued fever due, in all probability, to the formation of leucomaines, or to catarrh of the digestive tract. The physiological process of life not only demands the formation of natural tissues, but also of *normal waste* and the moment the eliminating organs are called upon to battle with foreign matter, their scope of power is limited and the tissues irritated; as for instance, when the kidneys are loaded with uric acid crystals, the results of which we are perfectly familiar with. This condition can be overcome if we have both healthy lungs and nervous system; the latter to transmit normal impulses to the respiratory muscles, and thus furnish the blood with pure air to bring about natural physiological combustion. You may limlt your patient's diet to non-nitrogenous food-stuff, you may wash him out with the free administration of water and you may drug him with any or all of the remedies known to the medical profession that have any relation to a gouty diathesis and find your treatment of little or no avail unless you have the patient exercise in fresh air. Perfect oxidation of the food is the prevention and cure for gout. The changes effected by the artifice of man in the normal uniformity of the composition of the atmosphere is too significant a fact for us to lose sight of when considering a means for the preservation of health and the cure of disease. Pure air breaks up organic matter and renders it both harmless and also useful to each and every form of life that has been evolved in its midst. Without its chemical action upon inanimate matter, heat and energy would not be produced and the world would be without animate things. It creates and supports life; therefore, the moment we overload it with impurities, that moment we interfere with its power to maintain health. Yet, owing to man's present want of apppreciation of the necessity of maintaining the purity of this mechanical mixture for health, I have never found in his habitations an approach to purity in this great life-supporting element. It is mostly deficient in oxygen which is replaced by carbon dioxide and carbon monoxide, toxic, non-toxic, organic, inorganic, matter and frequently by pathogenic micro-organisms.

The carbon dioxide is of course, the least harmful. It being within itself only a negative poison. We do not now believe that the 123 persons that died out of the 146 confined for one night in the Black Hole of Calcutta, nor that the 70 passengers who died out of the 150 that were fastened in the cabin of the steamer Londonderry with the hatches battened down during a rough night in the year 1848, were killed by asphyxiation from carbon dioxide, but that they perished from the animal alkaloids formed out of the organic debris exhaled by the lungs and skin into an atmosphere deficient in that great purifier—oxygen. Organic matter is also taken into our buildings by soil air, our boots, and in large towns and cities, by the very air we are compelled to circulate through our dwellings as the nearest substitute obtainable for nature's atmosphere. The air of Philadelphia this month is so laden with filthy organic matter raised from the dirty alleys, (I say alleys, because they are not worthy the title of streets,) that when the sun's rays strike them as suspended in the atmosphere of a room slightly agitated, you instinctively hold your breath. Not only is this air loaded with filth that undergoes a chemical change and forms compound poisons when retained in rooms deprived of sunlight and deficient in oxygen, but we have also sub-soil air that circulates through earth so poluted with sewage that when brought to the surface you can smell it, with a moderate wind, some 1,000 feet away. This is the condition of the air that circulates through our cellar walls in Philadelphia, the average stones of which they are built containing nearly fifty per cent. of air which is constanly interchanging with the surrounding

atmosphere. Again a large proportion of the floors of hot air chambers of our heating furnaces are built of porous earth. What is the effect of this condition of affairs? Why, the air in the hot air chamber is lighter than the filthy sub-soil and outdoor air, therefore, the heavier outside column forces the poisonous sub-soil air through the floor of your hot air chamber, filling the space with a poluted air. This in turn becomes lighter and is forced through the hot air flues into the living rooms to feed the occupants, and we wonder why we are not typical specimens of the genus Homo. During the early part of this century, Philadelphians were not satisfied with the cess pool and sewage filth they could take into their bodies through the air. The cess pools and sewers were built with what is called dry walls, which are walls constructed simply of bricks with open inter-spaces. The object being to permit the percolation of the effluent through into the surrounding subsoil, the idea being that mother earth was a great and inexhaustable purifier. This, however, was too complimentary, her power was limited and the sub-soil soon became surcharged with filth and through this polluted ground they deliberately laid wooden conduits for water carriers, which in certain strata of earth soon decayed and became very porous, in fact so much so that disease-effecting and disease-producing micro-organisms would pass through their walls into the stream of water, on its way to the drinking tap in the houses of our ancestors. If this condition of affairs existed at present, we might be even more apprehensive than we are of the threatening cholera epidemic. Another substitute for the oxygen that our house air frequently contains is, as I have already mentioned carbon mon-oxide. This gas is a direct and deadly poison, one per cent. of which in a confined atmosphere will unite with the hæmoglobin and deprive the red blood corpuscles of their power to carry oxygen to the tissues, in consequence of which the nerve centres fail to respond to stimulation and death ensues. The usual sources of this gas, which I believe to be one of the great predisposing causes of early decay of our faculties, is the combustion of the substances used for producing heat in buildings for the various purposes of man. It is non-odorous and will pass out through cast iron when sulphurous acid gas, which when present acts as a tell tale, will not escape. Hot air furnaces and stoves for the burning of coal are fertile sources of this poison. Yet, our city fathers in Philadelphia were not satisfied with the small volumes of this insidious poison produced and permitted to escape into the air of our buildings from this source, and they therefore introduced water gas into our mains. This gas must contain at *least* 35 per cent. of carbon mon-oxide and at the same time has a solvent power on a residuary substance that has been deposited in our old pipes from coal gas, which prevented leakage—consequently during the last year our houses have been deluged with this health destroyer. There is no doubt in my mind, but, that much of the so-called diphtheria in Philadelphia last winter was a tonsilitis caused by water gas poisoning. Our people, however, because they are furnished with a better illumination by this gas which is richly charged with carbonaceous material, go on electing to office those who are through ignorance poisoning our bodies and, at the same time, burdening us with as heavy a tax as the English laid upon our colonial ancestors, by charging for this poisonous gas about three times the cost of its production. Deficiency in oxygen and the excess of carbon dioxide and the additions of carbon mon-oxide and organic matter in the air of buildings occupied by man and the domestic animals undoubtedly play a most important part in the etiology of all pathological processes, yet, the injury comes so slowly and continuously that man does not fully realize the presence of the enemy until too late. The people's medical advisers do, however, realize this condition and also the importance of pure air to maintain health and to overcome pathological processes. Therefore it behooves our profession to teach the people, particularly the law-makers of our land, the necessity of having this element, with which nature has so bountifully supplied the organic kingdom, kept pure. Each physician should insist upon his patients refusing to endorse any candidate for public office unless he gives a pledge that he will exert himself to have laws made and enforced to bring about a higher degree of health. It is as important to compel our people to have properly ventilated and lighted houses as it is to

have sanitary plumbing, which latter our laws require. As physicians we forget the scope of our power and neglect our moral and professional duties. It is incumbent upon us to instruct our patients how to preserve health and thereby improve the moral, religious and political standard of this the greatest nation of modern times.

Ill health is the parent of much that is bad in civilized life and it lies in our power more than it does in those devoting their lives to the professions of law and theology to advance the moral condition of our people. There is not a man, woman or child in this great State that is without a physician. He is thrown into the most intimate relationships with his patient and by teaching the proper laws of hygience he can greatly reduce murder, suicide, drunkenness and family feuds. If this is so, why are we not doing our duty? The answer must be that sanitary medicine is not attractive, in fact many of its details are naturally repulsive and not profitable to him, and therefore the physician shuns it in his private capacity and this is wherein he fails, for it is not as a reformer, legislator, or a scientist, but as a family physician that his great power for good in this direction lies. It is in this role that the doctor of the present day is at fault, he does exert himself to legislate, to exhort his fellow physicians, but, as the familiar family doctor, he fails to take advantage of his power to exert a moral influence over his fellowman. The great physician must bridge over the wide gap between science, in the abstract, and medicine as it should be practiced in every day life. Without a moral influence over his patient, he cannot reflect the full power of his scientific knowledge.

In no other profession is the adviser brought into such intimate relationship with his fellow creatures when they are susceptible to advice, unless it be the spiritual adviser whose duties too often come when the question of life is about to be closed. At the word of the physician families separate for years, men give up their trades and vocations. Their domiciles are moved to higher elevations, or to the seashore. Therefore, if we have it in our power to bring about such radical changes as these in the habits of our patients, why is it that our homes, factories, mills, vehicles, hospitals, places of amusement, etc., etc., etc., are so poorly supplied with fresh air. Again why is it that our cities in this great State are permitted to be built up so closely? Where are our urban parks, gardens, and playgrounds which are necessary to keep up the average standard vitality of this great nation? I say nation because it is made up of individual men and women, its power being simply the sum total of the force of the individuals that go to make it up, and the more thickly the inhabitants are settled the lower is the degree of health. It has been said that, all things being equal, the health of a population is in inverse ratio to its density. The only way to overcome this rapidly increasing evil of huddling together is by opening to the people public gardens and open spaces and wide boulevards. A wide avenue is now proposed in Philadelphia, which would not only give to the city as it were, a new lung but it would make a short and attractive walk and drive to the greatest city park in the civilized world. I have heard it spoken of as an ornamental luxury, but I believe it is a crying sanitary necessity, which if once demonstrated to our lay people by its physical opening, would, in a short time, be followed by a request to the authorities for others of a similar nature. Outside of a better sewage system and a mechanical filtration of Schuylkill water I know of no other more crying need in that great city of our State than air spaces and vegetation.

The way in which our towns are being closely built up is disgraceful to our city fathers and reflects somewhat upon the medical profession. Too many poorly ventilated public school houses are at present being erected. They are built upon contracted spaces, without gardens or playgrounds, where the brains of the present generation are overworked and the body starved and poisoned for want of pure air. To pass one of our public school houses in Philadelphia at noon and see the pale faced children playing on the damp brick pavements between two high walls shutting out the rays of the glorious sun, makes one blush with shame for the ignorance of our people. While to enter one of our school houses during session soon benumbs one's brain. During the last winter, young girls in our Normal school fainted away for want of oxygen. The remedy for this deplorable condition

of things is largely in the power of the medical profession. If each doctor in this community would teach his patients the importance of pure air, there would be such a universal demand that those holding public office would be compelled to grant us better ventilation in public and private buildings, give us wider streets, more small gardens, less water gas, better sewage, cleaner streets, and less smoke and lower buildings, which latter would permit of the sun's rays shining to foundations of the buildings on at least one side of the street. The recent structures in the large cities in this country are monuments of ignorance of our people, that our descendants will censure us for in time not far off. Our streets will soon be but caverns such as the half-civilized man lived in centuries ago, mere fissures between great walls of stone and bricks; damp, sunless, and dirty, a sine qua non for disease germs. Less steam from the factories, locomotives, and engines should be demanded. These improvements would lead to a decrease in the mortality of children, crime, drunkenness and immorality and to a marked raising of our standard of mental power.

To-day it is a crying shame to our intelligent classes to analyze the air in our medical teaching institutions. Only a few years ago Dr. Kerlin made a series of important examinations of the hygienic conditions of the air in the lecture rooms of Medical Hall of the University of Pennsylvania, with the result of showing 17 per cent. of our index of impurities, or in other words the carbon dioxide raised from 4 parts in 10,000, to 17 parts in 10,000. While 6 parts in 10,000 represents the maximum of impurities in ordinarily well ventilated rooms, 7 in 10,000 is detected by the sense of smell.

In studying the etiology of disease, we must not permit ourselves to be persuaded that bacteriology has given us Le mot d' ènigme. Micro-organisms undoubtedly have the power when introduced into the circulation of healthy animals, of producing certain diseases, yet I feel convinced that in tuberculosis and many other germ diseases they in a large majority of instances, only change an already unhealthy tissue into one definitely and fatally morbid.

Normal tissues supplied with pure air have great power to resist germs taken into the body through either the digestive or respiratory tracts. This conclusion is reached from the fact that I found guinea pigs and rabbits yielded much more readily to inoculations by tubercle bacilli when confined in cages kept in the cellar under my city laboratory, than they did when kept in my animal house situated in the country and so arranged as to have a large volume of pure air circulating through it both day and night. To avoid tuberculosis we must recognize the predisposed habit of the individual and have him live in pure air and not breathe a deoxydized atmosphere, or air loaded with fibrous matter, or spiculated dust, or air impregnated with the products of combustion of coal, or the escape of water gas, or a high percentage of humidity, or air that has been robbed of the sun's rays. This last is not the least important. It not only prevents dampness but destroys poisons, such for instance as the woorara snake poison and bacteria. If such environments are not avoided a lower and lower vitality will creep on insiduously inch by inch until a pathological condition becomes recognizable both to the victim and his medical adviser. At this stage if not before, a nidus has been formed which is quite susceptible to the action of pathogenic minute life, and should the patient not be removed from the environment that predisposed him to the attack of the germs, his resisting powers will be still further reduced. It may however, be discovered early enough to not only prevent a greater degree of susceptibility but, by proper hygienic conditions, the tissues in many cases will return to that degree of health not suited to the lives of micro-organisms.

I do not mean to undertake to weigh the exact power of germs to break up the affinity of normal tissues when brought into contact with them in what we may call the natural way, to differentiate it from an artificial method. I do intend, however, to say that if we can maintain by the aid of pure air and proper physical exercise the integrity of function to a degree that renders the tissues almost impregnable to the attacks of micro-organisms, we must girdle ourselves with an armor of general good health if we wish to resist the attacks of minute life. The prevention of premature death, disabled physical and mental faculties, forms a far

more comprehensive question for the physician than does curative medicine, at the same time we must recognize that preventive and curative medicine are inseparable. While we are gathered together in convention, we all advocate hygienic measures, admitting them to be paramount to the more fruitless task of the so-called curative side of medicine; yet, I fear we are in preventive medicine too much like many of our Sunday Christians, who believe in the theory, yet forget its practical workings by the time the business houses of Monday morning open for trade. The physician of to-day who has been taught and believes in preventive medicine, too often empirically accepts disease as an existing condition and treats it accordingly until alleviated or cured. This stage reached he considers his work done until called in again, upon his patient becoming ill, probably with the accumulation of impure air and unhygienic habits. This may be pecuniarily profitable to the medical man, and might warrant the ignorant to attribute our laches regarding prevention to be entirely toward this selfish end. This, however, would be very unjust. We must account for the customary neglect of hygiene by the fact that both preventive and curative medicine were hidden in darkness for thousands of years and, therefore, the conservative, cautious and wise physician, with a full realization of his ignorance, only interfered with nature when appealed to act by the appeals of an acute sufferer, thence the habit. To-day, this should not be so; we do not regard disease as a visitation of the Almighty God, inscrutable in character. We sufficiently understand many of the predisposing and exciting causes to guide our fellow man through life free from the heretofore unknown poisons to a much more satisfactory degree than some of our forefathers, who believed themselves capable of curbing the wrath of God by the administration of their empirical remedies. This good fortune of ours, however, comes to us from the fact that, in all ages of medicine, our profession has been besprinkled with ambitious minds, who have labored to discover the causes of ill health, and methods to prevent disease, and now the time has arrived for us to come to a full realization of what has been demonstrated regarding man's power to prevent disease and adopt as our motto *venienti occurrite morbo*, hasten to meet the coming disease. Those factors essential for prevention often prove essential for cure, which fact is not recognized by many of our practitioners. For instance we frequently know of a physician who is called in to see a patient; he correctly diagnosticates the case as one of typhoid fever, and then simply applies his knowledge of the healing art. Oftentimes with as little success as if he had been administering to a person with symptoms of lead poisoning, who was at the same time continuing the use of water impregnated with the poison. He seldom interests himself to investigate and remove the source of poison but frequently orders the patient on a milk diet, thereby giving him every few hours the very vehicle that first carried the poison. I conceive it, however, to be our duty to at once investigate the water, food and air supplies, and thereby cut of all external source of further poisoning.

The healing art and preventive science are part and parcel of each other. The cure of disease must be imbued with a preventive element. Scurvy certainly demonstrates this assertion to be true, as in the treatment of this pathological condition, we see the cure emerges directly and exclusively from the preventive treatment, and I have no doubt that as our knowledge increases this principle of physiological treatment as opposed to complicated and disturbing drugs will be more clearly recognized.

If some move to establish better hygienic conditions is not accomplished ere long, and our people taught to appreciate that education of the body is almost of equal value with culture of the mind, the bodies of our people will be starved, and the normal brain become morbid and inactive in the proper direction. The now great American nation will be forced to take a second place regarding health, ability and morality while she will rank high in immorality.

It is a sad mistake to centralize our attention upon the cultivation of the brain, as if it were a separate organism entirely independent of the physical body, and it depends upon our profession to form a public opinion favorable to a supply of pure air and physical exercise, particularly to the poorer classes; and this I exhort you to, as nothing else will maintain the high

standard in our future generations that has been handed down to us by our forefathers.

Fellow physicians, upon reform in sanitary matters, depends the future of this promising nation. Our government has its Secretary of State, of the Navy, of War, of Agriculture, of the Treasury, while the richest treasure of mankind—health, is absolutely ignored. Why do we not have a Secretary of Health. This is a disgrace to us as a people and indirectly a reflection upon our profession, for we undoubtedly have it in our power, if we would insist on our patients and their families paying more attention to sanitary matters.

Knowing, as a physician does, how important health is to human greatness and happiness, our efforts cannot be too great to maintain it. The present year is one of more than usual importance with the dire disease cholera close to our shores. Yet, with the individual exertion of every physician in this State to maintain cleanliness and to stimulate those trusted with quarantine, we should not only prevent the entrance and spread of the disease, but, faced by such an enemy, the legislators would be reminded of the vast importance of a good code of sanitary laws and vote liberal appropriations for the execution of the same.

The following words of the late Dr. Richardson should be ever kept in mind. "Cleanliness covers the whole field of sanitary labor. Cleanliness, that is purity of air; cleanliness, that is purity of water; cleanliness in and around the house; cleanliness of persons; cleanliness of dress; cleanliness of food and feeding; cleanliness in work; cleanliness in habits of the individual man and woman; cleanliness of life and conversation; purity of life, temperance, all these are in man's power."

"How small of all that human hearts endure,
That part which laws of kings can cause or cure,
Still to ourselves in every place consigned,
Our own felicity—we make or find."

CLINICAL LECTURES.

OVARIAN CYST AND UTERINE FIBROID—OPERATION—CURE.*

M. A. MANN, A.M., M.D.,†

Last week you saw in this clinic a woman with a large abdominal tumor. Her case was of historic interest, for upon her Dr. Julius Miner did his first successful ovariotomy.

Three years ago she consulted me with reference to another abdominal tumor which I advised her to leave untouched unless it began to trouble her. Recently she returned saying that the tumor had enlarged rapidly and last week you saw the examination made to learn her condition. There was a large ventral hernia covered, apparently, only by skin and peritoneum. Under the hernia was a hard tumor and behind that another larger mass which fluctuated. The diagnosis, therefore, was uterine fibroid and ovarian cyst, complicated with a ventral hernia. Six days ago I opened the abdomen and found the diagnosis correct. Immediately on incising the peritoneum, this large nodular fibroid presented. It was adherent to the bladder, which was drawn up and spread out upon the tumor. Both broad ligaments, particularly the left, were drawn up laterally over the tumor. The tumor was also attached to the cyst which lay posteriorly and to the right. The external incision was lengthened and the fibroid pulled out of the abdomen. I then tapped the ovarian cyst and emptied it of its contents, which were clear and of the consistency of diluted white of egg. Drawing out the collapsed cyst, I found it covered with a thin sheet of adhesions; these I tore away until the cyst was nearly free. It was then found to be quite

*Report by A. L. Benedict, M. D.

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firmly attached to the side of the uterus. These adhesions were tied with cat-gut and cut. This afforded a better opportunity to work at the fibroid. The opposite broad ligament was tied with very strong cat-gut and cut loose, a clamp holding the uterine end. Then after carefully dissecting the bladder from the fibroid I passed an elastic ligature around the cervix. The cervix, owing to the long continued traction from above, was drawn out to the length of two inches. The body of the uterus, including the fibroid tumor, was cut off above the elastic ligature, leaving a cup-like pedicle consisting of the upper portion of the cervix. Having secured this pedicle with a wire clamp, I next sewed the pedicle below the wire to the peritoneum in the lower part of the abdominal incision, after which I closed the abdominal wound. You remember that Dr. Miner attributed his success to the fact that he did not put any stitches through the peritoneum. I sewed the peritoneum very carefully with cat-gut and wire and I attribute my success to the fact that I did sew the perinoneum. What a change of views in the last few years. Of course, part of the stump must slough away and I made the closure of the peritoneum below it as perfect as possible so as to prevent the absorption of septic matter. The external portion of the stump was completely buried in a mixture of boric acid and iodoform and then the ordinary dressings were applied.

The patient has had some abdominal pain, due to the gas collecting in the intestine as is usual in such cases. She has done exceedingly well thus far, her temperature has never been above 100° and the pulse has ranged between 70° and 80°. Yesterday I took the clamp off, leaving the transfiction needle to hold the pedicle up until it sloughs away. The woman is now practically out of danger and when she gets up she will be free from the annoyance of the old hernia. I will not promise that she will not get another hernia at the seat of the pedicle, but this cannot be helped.

Later report. The patient recovered entirely.

ENDOMETRITIS.

This woman is 46. In her twenty-four years of married life she has had five children, the last fifteen years ago. She was weak after this labor though not more so than after the others, and she has been sickly all her life. Nine years ago she had an attack of terrible pains in the womb. The pain was almost constant but was made worse by passing water and the micturition was frequent and difficult, especially at night. This indicates an irritable condition of the bladder from some cause. She also had backache and pains in the sides, but more in the left than in the right. These aches and pains have continued to the present time. Her heart troubles her so much that she can get up stairs only with great difficulty. She is not able to wash nor to do other hard work simply on account of the fatigue occasioned. Her menstruation is regular, lasting three or four days usually and during two days she flows excessively. Two months ago she says she used fifteen napkins and some of them were simply dripping. Two years ago she had some minor operation performed which improved her condition for a time, but she is now as bad as ever again. She has leucorrhœa following menstruation; the flow is profuse and accompanied with pain.

Here is a history which points both to pelvic and cardiac disease. The series of symptoms forms a gradual progress from a condition of moderately fair to one of marked anæmia and prostration. From her attending physician, I learn that she has dilatation of the heart with mitral and aortic murmurs. From the history we can learn nothing as to the exact state of the patient's pelvic viscera. She loses a great deal of blood but we no not know why, whether from some malignant or benign growth of the uterus or some other condition. The pain of which she complains in the vicinity of the heart is probably due to intercostal neuralgia, which occurs in a large proportion of cases of ovarian disease. In order to ascertain the character of the pelvic lesion, I will make a physical examination. I find that at some one of her labors, perhaps the first, perhaps a later one, she has sustained a broad, almost complete laceration of the perineum. The tissues between the finger in the anus and the one in the vagina are very thin, since the perineal body is almost entirely destroyed. The parts are very sensitive. As the fin-

ger passes farther in, the cervix is found not to be in its normal position. It is higher and farther back than it should be. Like the perineum, it has sustained a laceration and the two lips are widely separated by a bilateral tear. I try next to discover the location of the uterus. The tissues in front are quite soft, proving that the uterine body is not there. Moreover the cervix points directly at the symphysis-pubis, which it could not do with the body of the uterus in its normal position unless the cervix were flexed in an extraordinary degree. By putting the finger behind the cervix, I find the body of the uterus there. The condition is not one of retroflexion nor is it the common one of retroversion with prolapse. The uterus is simply retroverted and it lies high in the pelvis. By sweeping the finger around in the lateral fornices, I try to ascertain if there is any foreign body present such as a tumor, a prolapsed ovary or an inflammatory exudate. There is nothing of the sort present. Pressing on the cervix, I test the mobility of the uterus. It is not quite as freely movable as it would be in its normal position but it is not fixed. You will notice that the use of either speculum or sound has been quite unnecessary. There is one other condition probably present, to judge from the history, but this could not be diagnosed without the use of an instrument, which it would not be proper to employ since the patient is going home immediately after the clinic. If I were to pass a curette into the uterus and gently scrape its wall, I should probably bring away a few granulations, and the removal would be followed by a slight discharge of blood. It is to a granular endometritis that I attribute the excessive menstrual flow, of which this patient complains. The uterus, also, is enlarged and, from the long-continued displacement and laceration, there has resulted a congestion which in course of time has caused the granular endometritis. There is also an endocervicitis, which accounts for the leucorrhœa occurring after each menstrual flow.

The woman has quite cause enough for her complaints of ill health. Is there any relation between the cardiac and the pelvic lesions? An organic heart disease of the severity of this one, prevents the blood from circulating freely and tends to back the blood up in the extremities and the pelvis. It is altogether probable, therefore, that the congestion and consequent enlargement of the uterus and endometritis are added to by the cardiac disease. In some cases of heart trouble there is severe menorrhagia as a direct result.

Now comes the question which is important for the woman. Can we relieve her? She can not, of course, be made entirely well, since the heart lesions are incurable. But we can improve her condition greatly by removing the abnormal pelvic condition. The ruptured perineum must be restored, the lacerated cervix must be served up, the uterus must be restored to its place and held there. The granular endometritis which probably exists must be treated by the curette. The mere scraping of the womb is not enough unless the other conditions are cured. I believe, also, that it is necessary to make intra-uterine applications in order to cure the endometritis, having learned by experience that the curette is not sufficient. The heart lesion, while incurable, is not so unfavorable as many suppose. I see no reason why this woman cannot be restored to a moderate degree of health by treating her pelvic lesions and I do not think that the existence of the heart disease is a sufficient excuse for declining to give her a chance for whatever relief gynecology can afford.

The treatment of the endometrium can not be properly carried out by the ordinary cotton wrapped applicator. Such an applicator is useful enough in the treatment of cervical endometritis and it is not often that we have to go further than the depth of the cervical canal. Here, however, we must use an applicator syringe which resembles a hypodermic syringe with a very long metal or hard rubber nozzle, no larger than a uterine sound and provided with many small lateral openings. The barrel of the syringe holds about two cubic centimeters. The nozzle is wrapped evenly with cotton, dipped into an iodine solution and passed into the uterus. Most of the medicament is squeezed out of the cotton as the applicator passes through the internal os, but we can flood the cotton again by pressing on the piston. We do not really inject the fluid into the uterus, there is only enough of it to saturate the cotton. This is not routine treatment, it is only required in bad cases of menorrhagia due to corporeal

endometritis and after the uterus has been curetted. I presume I see two or three cases a year which need this treatment; but when they do occur, it is the only treatment which will yield satisfactory results. A great deal of disappointment would be saved both patients and physicians if it were more generally understood that curetting the uterus is not sufficient to cure a granular endometritis. Last winter I saw a case which had been curetted three or four times without benefit. I repeated the curetting, used the applicator syringe and the patient has remained perfectly well. In the treatment of these cases, I have found of late that the plan advocated by Dr. Polk gives very good results. He advises, after forcible dilatation of the uterus and curetting, that the uterus should be thoroughly packed with gauze, the object being to drain the uterus. He recommended the use of sublimated gauze, but, in my experience, this does not remain fresh for any length of time after its introduction into the uterine cavity. I have therefore substituted iodoform gauze, and with it have had better results. A practical advantage of this treatment is that after the first operation, the uterine canal remains for some time sufficiently patulous for the introduction of a narrow piece of gauze by means of an ordinary applicator. The gauze can, therefore, be renewed at the office. Some pain is caused at first but it soon subsides and the beneficial results of this method of treatment I have found to be very great. Although the after-treatment can be carried on at the office, I usually prefer to go to the house of the patient in order to allow her to rest in bed the remainder of the day or longer as may be indicated by the amount of pain. Before Dr. Polk published his method of treating these cases of endometritis, I had long sought a way of introducing iodoform into the uterus and I tried all sorts of plans, feeling sure that the treatment of the uterus on this line would cure many cases which resisted the older methods of treatment. I was glad, therefore, to learn of Dr. Polk's success.

The other conditions existing in this case, the lacerated cervix and the ruptured peritoneum must also be treated. The thorough treatment of the endometritis might result finally in a relapse if these other elements were ignored.

COMMUNICATIONS.

METHODS AND MATERIAL IN ABDOMINAL AND PELVIC SURGERY.

JOSEPH PRICE, M. D., PHILADELPHIA.

I realize how very fertile my theme is for discussion, and my familiarity with current medical and surgical opinion, the lessons of surgical experience and those derived from more or less intimate professional relationship with Fellows of the profession—all forewarn me that some of my opinions or conclusions may be called in question. The openings are many and wide for difference of opinion on many of the questions of our science and art. Ours is a great universe in which we are all pupils, gaining with a humiliating tardiness the lessons of our science. There is nothing we should welcome so heartily as that enlightened criticism which directs the way in correcting our errors. We are not so tied to our present ways of doing things that we will not welcome other and better ones. The responsibilities of uro profession are too grave, our work, when wisely and skillfully done, too beneficent in its character for us to go on repeating errors. We are entitled to the lessons of each other's successes and failures, of repeated or new experiences, the facts evolved of research or experiment. There is no time when we are so happy in being at home as when our critics call—presumably they always have something for us. Fortunately these meetings of doctors cannot be designated as mutual love associations, where all is intellectual harmony—they are something more than festival occasions; they are an important part of the machinery of our medical and

surgical education. The spirit pervading them is one that animates the profession generally. It is a spirit that puts us to bed late and gets us up early.

Though our science is yet in its infancy, much of it has passed from mere speculation to practical and valuable use, and has multiplied the fields of our inquiry. The seeming spirit of innovation is largely a spirit of progress. New and powerful impulses are carrying forward the profession. Reverence for antiquated methods has lost its force. Our literature is being inspired by a spirit of enthusiastic inquiry and research. The earnest, thoughtful men of the profession are speaking through our conventions and medical journals, shaping and leading medical opinion, giving methods and results; and results of methods always constitute the chief element in any decision respecting their value. In all our work the one supreme concern is the result. By result in operative cases we mean something more than recovery from the operation. There is such a thing as lingering surgical deaths — post-operative sequela more to be dreaded than death.

While we honor the achievements of our pioneers, the men who have given impulse and direction to scientific investigation, and would emulate the purity of their examples and the tireless energy of their endeavors, we must claim many advances made by the bold inventive genius of the working physicians of our own period. We are not permitting our own ways to be numbered by the myths condemned by modern science, old superstitions and exploded theories. We accept only those facts as essential and vital which withstand the severest clinical tests.

The evidence of our advances may be found along the lines of every department of medicine and surgery. The advances in strictly medical science lies in the use of simples; our prescriptions have ceased to be pharmacutical inventories; there is less resort to specifics as curative agencies and more attention given to pure nutritive food, pure and fresh air, rigid, persistent and scrupulous general and personal cleanliness. All successful practitioners of general medicine will agree with Dr. Oliver Wendell Holmes that, "The disgrace of medicine has been that colossal system of self-deception, in obedience to which mines have been emptied of their cankering minerals, the vegetable kingdom robbed of all its noxious growths, the entrails of animals taxed for their impurities, the poison-bags of reptiles drained of their vemon, and all the inconceivable abominations thus obtained thrust down the throats of human beings suffering from some fault of organization, nourishment, or vital stimulation. Much as we have gained, we have not yet thoroughly shaken off the notion that poison is the natural food of disease as wholesome aliment is the support of health."

In every department of surgery the advances have been phenomenal. Experimental research, increased clinical knowledge, a better understanding of anatomical structures and their inter-relation and dependence, combined with our advanced pathological knowledge have combined to make possible brilliant surgical success— have placed surgery upon a scientific basis. Our modern surgical triumphs are not due so much to boldness of operative procedure as to the increased accuracy of our physiological and pathological knowledge, our improved technique, skill, care, scrupulousness and mastery of details. The most of us suffered from the inadequacy and inacuracy of our early pathological teaching. We were left much to learn and much to unlearn.

In gynecology much of the early work was experimental in character. Methods were tried and abandoned—and then again revived as new and original. In these claims to originality of method the author has sometimes been honest in his claim but ignorant of the history of the subject. Claims as to authorship and priority of method make some of our surgeons very unhappy. The truth is that it would be better for suffering women if the daddies of not a few of our surgical methods had been quietly chloroformed into the infinite glories in very early infancy, before they felt the embryo movements of inventive genius. The future will make more inquiry as to the results of our surgery than as to who devised or invented our methods. It is to be hoped that, as we go on clearing up uncertainties, all our present methods will be crowded out by better ones.

We will make brief reference to some of our methods or procedures, their wisdom or unwisdom, as their history im-

presses us, that more with the view and desire of eliciting discussion than with the view of presenting any thing new and original.

First, that of vaginal hysterectomy with diseased appendages. The procedure is a very imperfect one and dangerous in the hands of any one—no matter what their surgical experience and skill. The adhesions, omental and intestinal, commonly found in the removal of all adherent forms of disease, must be dealt with from above. The removal of the uterus is a simple matter, but dealing with complications above requires painstaking surgery to save the patients and to relieve them from primary and secondary complications, which are always serious. Hysterectomy for metritis and for prolapsus are unjustifiable procedures and are bound to bring legitimate work into bad repute.

Accidents in freeing or liberating all adhesions are to be avoided by hugging the tumor or cystoma closely in freeing adhesions. If the cyst or tumor is adherent to large vessels, kidney, ureter or liver, the adhesions are to be followed carefully in lines of cleavage. Large and small bowel adhesions are to be liberated with care, and both sides of the bowel inspected that all links and bands of adhesion may be freed and not permitted to remain sources of danger by constriction favoring acute or chronic obstruction. Hemorrhage is to be guarded against with care; it follows rude enucleation, hasty work, want of surgical knowledge, that which comes only of practical experience in the use of ligatures. Bulky vascular pedicles should be sub-divided, each ligature containing sufficient tissue for safe hæmostasis. The hemorrhage may not be free, but oozing or slight—favoring a large clot; this in a feeble patient not drained will result either in death or tedious convalescence, sometimes in suppuration and pyæmia. Of the numerous methods of dealing with the pedicle, many of which have fortunately been abandoned, that of ligature and cautery remain the most reliable and trustworthy. A retracted pedicle is one of the most unfavorable accidents in ovariotomy. It is to be treated by reopening and retying. If the operator is apprehensive of hemorrhage he should place his finger on the stump before tying the lower sutures. The drainage tube, if placed, will be a hemorrhage sentinel; if not placed he will have to rely upon the patient's pulse and color, counting the patient's pulse often and watching other symptoms so characteristic of hemorrhage. Applications and the administration of remedies will avail nothing. You must seek the retracted pedicle and offending vessels and tie. Peritonitis and Septicæmia are the two common causes of death after abdominal operations. Localized peritonitis is the most common cause of post-operative complications and pain.

In cases of peritonitis, whether due to infection through veins, lymph channels, perforating ulcers, suppurating appendicitis or dermoids, or any of the angry forms of intrapelvic or abdominal disease, the treatment should be prompt, radical and thorough—*seek the cause*—the abdomen once opened there should be no hesitation in removing it, whether it be appendix, dermoid, suppurating tubes or a section of intestine. Having removed the cause, thorough drainage of the unhealthy parts or surfaces will bring the patient around to restored health. In these cases salts performs an important office. Opium should be absolutely avoided—should at no time have a place in the treatment. There is nothing in our surgery so encouraging and comforting as to witness the subsidence of all alarming symptoms immediately upon the early removal of the source of infection—or a tumor ruptured, leaking or strangulated. We often hear men say that a patient is dying from general peritonitis and cannot be saved. This is absolutely an error. The *one saving method* of any variety of general peritonitis is abdominal section and flushing or irrigating with two or more pitchers of clean water—this is the only reliable treatment now known. It has been sufficiently tested in a large number of the most desperate cases, cases actually dying and beyond all hope from any other method of treatment. Opium, poultices and the let-alone treatment are *absolutely worthless* in such cases and never save life. The irrigation and drainage method of treatment saves many. Nothing has made me prouder of my own special work than my triumphs in the treatment of peritonitis.

Some of the operators condemning drainage, irrigation, etc., are in the habit of abandoning a class of complicated cases, claiming that they cannot free the

diseased appendages from the intestinal and other adhesions without risk or danger of fecal fistula. Surely their experience must be limited or they would recognize the great importance of completing these operations at any cost. Operators cannot avoid making holes while freeing fixed and disorganized bowel in the removal of suppurating tubes and ovaries, but they kill their patients by neglecting or overlooking such injuries; they should be repaired promptly and thoroughly and no *mischief will follow.* It should be planted and kept in mind that successful surgery means ceaseless vigilance, rigid, persistent, ceremonious attention to all details; there should be no such thing as indifference to minutiæ. It is the unnoted, neglected things that cause us trouble, that bring calamity to the patient. There should be thorough preparation of the patient for all intraperitoneal operations. About all patients suffering from inflammatory or suppurative forms of pelvic trouble carry loaded bowels, and it is simply surprising how very copious are the evacuations following the use of a saline, and the relief from all pain and the general comfort of the patient is so marked that she generally objects to operative interference. The thorough emptying of the bowels favors comfort and speedy convalescence, minimizes accidents and post-operative complications. Distention rarely follows an operation if the preparation has been complete and the operative toilet a thorough one. I have repeatedly completed one hundred sections without distention occurring in a single case. Drainage by purgation before operation in cases of acute or chronic suppurative forms of disease, and drainage by tube following operation invariably give a cool skin, a clean tongue, slow pulse; make a hopeful, cheerful and comfortable patient, with a total absence of uncontrollable restlessness, despondency, coated tongue, nausea, and all the uncomfortable conditions following the use of opium. In all important or major operations we should have one trained assistant, never many. There should be two trained nurses; they young and healthy, and by habit neat and cleanly of person and trained to military exactness and alertness in all their movements; they should be familiar with the operator's idiocyncracies. In a private hospital more care can be exercised in the choice of a nurse for a particular case than in private practice; for instance in a hospital the choice of a nurse not menstruating can easily be made, where, in the case, the use of at drain tube is probable.

The temperature of the patient is to be looked after before, during and after the operation; damp, cold rooms and corridors are to be avoided; it is important to use warm, dry blankets during and after operation. An operating table made of manifold coils of steam pipe is a simple and perfect way of treating shock. This complex question of shock I will not attempt to discuss here. For the gynecologist one important subject of consideration is anæsthesia. When we consider its importance to refined and successful surgery we must acknowledge that we are by no means giving it the attention it deserves. As a rule anæsthetics are prolonged by necessity in gynecological operations, the operations are much longer than in general operations. The resection of bowel takes more time than that of a joint; the removal of a large fibroid more time than the amputation of a limb. In general surgery the steps of the operation can be anticipated, they are well defined and understood before its commencement; in abdominal section we can in no case see into what any given operation will eventually lead; some are simple, others bristle with difficulties and complications, and in feeble subjects the difficulties and risks are multiplied both for the surgeon and the anæsthetizer. Shock more commonly follows abdominal operations occasioned by exposure and manipulation of abdominal viscera. A number suffer from a variety of shock due to peritonitis following leakage, rupture of twisted pedicle, or the hemorrhage of a ruptured tubal pregnancy. The depressent action of chloroform is so marked and often alarming that many of us hesitate to use it at all, while ether can be given with greater safety, less depression and with a mortality of four per cent. in its favor. It matters not to the gynecologist how chloroform kills. Whether through the heart or some other organ, it certainly does kill quickly and in a way that baffles all preventable effort. Unnecessarily prolonged anæsthesia are to be condemned. Faulty methods of administration in the

hands of men with little or no experience as anæsthetists are also to be condemned. Irritation of kidneys and lungs and nausea can all be largely avoided. Nephritis has never followed the use of ether in my work. All the sequelæ of ether can be kept within bounds of safety if men will only take the care to study the art of its use. The jackknife or rule-of-thumb methods of the young novitiate or house-surgeon are not methods by which the value or relative merits of an anæsthetic are to be tested. Many of the drawbacks with which ether is credited is due to lack of knowledge and skill in its administration.

I would here enter an earnest protest against the rude, often rough handling of patients by physicians. A woman, and she weak, delicate and suffering from disease, sensitive to slightest touch, should not be handled as a Milwaukee brewer would a keg of Western beverage, or a Kentuckean a package of "Fine old Bourbon." It should be understood that she does not need shaking up. For more than ten years I have followed the practice of personally taking the patient from the operating table and placing her in bed. I am satisfied much mischief is done by some of the thoughtless and rude methods of handling patients after operation.

Physicians and nurses would find entertaining and profitable reading in that delightful little book—"Rab and His Friends," written by Dr. John Brown of Edinburgh, Scotland. He invests the illiterate, rude, rough handed cartman with the delicacy, sympathy and thoughtfulness which should govern in our dealing with patients. "Had Solomon, in all his glory, been handing down the Queen of Sheba at his palace gate, he could not have done it more daintily, more tenderly, more like a gentleman, than did James the Howgate Carrier, when he lifted down Ailie his wife."

All operators should have an accurate knowledge of his materials. Only mischief and imperfect work can follow the use of large, coarse silk. Accidents, hemorrhage, abscesses, fistulæ and a variety of post-operative sequelæ follow its use, as they do also the use of bad qualities of cat-gut. Pure, fine silk, well placed is rarely followed by any trouble. Cat-gut is an uncertain and unreliable material as found in the shops. Some of the older operators who carefully select and prepare their own cat-gut have excellent results with few accidents, but they forget while recommending and urging its use that they are placing uncertain material in very many instances in the hands of beginners, some of whom know little about placing a ligature of any character. The law of practice should be with all teachers, both as to method and material to teach the use only of that method and material which in the hands of beginners will do the least harm, is all-around the safest and promises the best results. A number of patients have been lost by hemorrhage alone through the use of cat-gut. In all intra-abdominal work it matters but little what you take out of the abdomen in the shape of abdominal growths, if it is done thoroughly and quickly; but it is of serious concern, matters very much as to what you take in and leave in. The question has been asked why is silk so persistently used. The answer is a very simple one and should be a satisfactory one. The most of our operators have given all kinds of material a fair trial. The results the world over have been the best with silk. Long before the modern *pioneer advocates* of cat-gut championed its use here in America it had been tried thoroughly both in America and Europe and rejected as an unsafe and unreliable material. One of our young American operators says: "silk is a nuisance." He should give it a prolonged trial.

Great care should be exercised in the choice of silk; it should be pure, strong and clean and used in the smallest possible quantity. The range of abdominal and pelvic surgery will never again be confined within their narrow lines, its field restricted to a limited class of cases and to a small number of operations.

Gynecologists are not limiting their study to any one organ. They welcome the advances of the practitioner; recognize that there is nothing met with by the specialist that is not met with by the general practitioner, and that the same sound sense that determines the trouble will suggest the remedy. The reproach from which all surgery has suffered, especially abdominal and pelvic surgery, has been almost entirely due to the blundering work of many who attempted work for which they had no special training.

The fact that the abdomen has been opened many times when it should have been left closed; that there have been many obvious errors in surgery is a weak argument against the surgery of men who haxe devoted time, money and every energy in equipping themselves for their work, who do conscientious, complete thorough and successful work. It is with great pride we can point to some of our own countrymen as standing in the fore ranks of the profession contending with the courage of veterans for its advance. We have in our midst one who has contributed as much as any man living or dead to our advances. I refer to Nicholas Senn, of Milwaukee. With what pride we find distinguished English brothers paying tribute to his work. There is high and deserved tribute in the following from an eminent English Surgeon:

"It is due to Professor Senn, of Milwaukee, that intestinal surgery, from being one of the most fatal departments in surgery, may now be ranked among the most successful, and as time and experience progresses, we may look for most brilliant results, not to be eclipsed even by those of the ovariotomist. Senn's method, which I had the honor of first bringing prominently before the profession in this country (England) proved so successful in the experimental research I made some two years ago, that I have never ceased to impress the importance of his suggestions before the profession." While our country produces such men our profession cannot retrograde.

SOME REPORTS OF THE EPIDEMIC OF CHOLERA OF 1892 IN CITY HOSPITALS OF ALTOONA, PRUSSIA.*

DR. A. HERBST.

The source of infection originated in Hamburg, seventy-five per cent. of this was chiefly carried by the laboring class employed in Hamburg and living in Altoona; the remaining twenty-five per cent. was not so easily accounted for, fifteen per cent., in all probability, having originated in or about the port of Altoona. The suspicion was aroused that the Elbe had been the means of conveying the scourge to both cities, either by the ingestion of the water or by those occupied at the river front, thus coming immediately in contact with the infected water. A few cases will be sufficient to show the possibility of such infection.

Case I. A sailor, enjoying previous good health and of good habits, drank, on the evening of the 23rd, 8 month, a large quantity of water immediately taken from the Elbe, in spite of being prohibited by the authorities on the ship, and on the morning of the 24th he sickened, growing rapidly worse. The afternoon of the same day he was taken to the hospital in the third stage of cholera and a few hours later died. The author cites four more cases quite as typical, the infection being distinctly traced to the ingestion of fresh unboiled Elbe water, and states that he could continue indefinitely, giving proof of the same kind. The typical aspect of grave cholera cases will never be forgotten after once having seen them. The patient who only a few hours previously attended to his duties, lies before you unable to move, the eyes deeply sunken, their lids partially closed, the eyeballs rolled upward, the nasal and cheek bones sharply defined, the skin extremely pale, frequently covered with cyanotic spots of a light or darker blue color, often fading into grayish tints. The integument at times is absolutely dry and at other times covered with a cold, clamy sweat. Its elasticity is gone; folds pinched up, remain stationary. The pulse at time of admission to hospital is often deceptive, the heart's action being somewhat excited during transportation. Some minutes of rest will show the pulse to be almost imperceptible. Others were admitted entirely pulseless; the respirations were slow and superficial; the temperature taken per rectum was frequently subnormal; the extremities

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were ice cold to touch; a peculiar indescribable odor surrounded the patient, which may be described as "fœtor cholericus." This odor is also present in the cholera cultures to a lesser degree. If the patient was able to speak, his voice was hoarse, thick, sometimes without sound; this may be termed "vox cholerica." Sometimes before the patient reached the bed the vomiting and diarrhœa began—the oft described rice water discharges peculiar to Asiatic cholera—and almost immediately after the patient was seized with painful cramps in the calves of the legs and muscles of the fingers. Some of our patients complained of great pain under the border of the ribs which radiated in all directions. This was probably due to the dyspnœa and the exertions of continued vomiting. The intense thirst is of the most characteristic symptoms, the patient drinking all that is presented, only to vomit it the next minute. The great loss of water from the system reduces blood pressure and consequently the secretion of urine becomes diminished, so that only a few drops can be voided at a time.

Of importance, according to the experience of the author, are the symptoms referred to of sight and hearing; the conjunctiva and sclera are markedly injected, often amounting to hemorrhage from the subconjunctival vessels; the conjunctiva itself is dry, dull and often presents small ulcerations. The patient complains of burning pain in the eyes. In grave cases, even before death, gangrenous patches are noticed on the sclera and cornea. These spread rapidly after death. The sight was not disturbed except in a few cases, who complained of darkness before the eyes, in two others there was double vision. The symptoms referring to hearing were equally characteristic. A large majority complained of intense tinitus aurium first in the right, then in the left, and then in both ears; others complained of deafness, as though the membrane had been placed over the ear.

The author proposes two explanations for these symptoms:

First—due to thickening of the blood and therefore lessening the circulation; the other due to nervous symptoms arising from the intoxication of the cholera poison.

Regarding the *temperature*; in grave cases the temperature is usually subnormal. This fails to correspond with the cholera epidemic at Hamburg, 1873, where some cases were reported to be without fever, while in others, the temperature rose to 42° Cent. There had also been recorded a difference of between 2° to 3°, if taken in the rectum or the axilla.

The author records in the first 138 cases only 16 in whom the temperature was beyond 37°, taken usually on the same day of admission; 38° was met with in four cases; in all others the temperature was below 37°, quite often as low as 32°, or 31°. In 238 cases there was about 15 per cent. in which the temperature was not over 38°, in 5 cases it reached 39°, but not over 39.6°; of 16 cases the axillary temperature was over 37°, 9 of these recovered; of 35 patients, whose temperature, taken in the rectum, was over 38°, 21 recovered.

Cause of the disease.—The severity of the attack usually lasts some hours, less often days. Its course may be more rapid from the fact of the great loss of water and the subsequent reduction of temperature rather than the intoxication of the poison; heart failure and exhaustion usually proceeding death.

An improvement due at first to the natural resistance and aided by well directed treatment, will often give way to the secondary stages of cholera infection, in which the patient often passes into a comatose state, known as cholera typhoid. The face may be deep red, shining, though the patient may be snoring. When roused the speech is slow, the words scarcely articulate; the lips, tongue and gums are dry, the sordes collecting in the mouth, the head bent back, the eyeballs rolled upward. Examination of the internal organs seldom reveals pathological conditions, only occasionally mucous rales are heard. The heart's action is good, the pulse full, bounding but not dichrotic, the liver and spleen are not enlarged, the temperature at times rapidly increased from sub-normal to 39° or 40.° In most cases, however, it remained below normal. The diarrhoea during this stage ceased entirely in some patients.

The delirious patients frequently allowed their discharges to pass into the bed. Vomiting ceased during this stage. The most unfavorable prognostic sign is the condition of the kidneys.

Recovery was usually of two forms—First, in which it set in immediately after

diarrhœa and vomiting had ceased, the temperature and pulse returning to the normal. In the second group of cases the stage of reaction was ushered in by a rise of temperature, the face reddened and the patient complained of heavy and internal heat. A careful examination of the internal organs gave negative results. The temperature and accompanying symptoms usually lasted from eight to ten days. Among the *complications* are alcoholism and its results, delirium tremens, we have no less than twelve cases or three per cent. of decided delirium tremens; of this number ten died.

Pregnancy was present in five patients, in three abortion took place, and soon after, death. In a fourth the patient died before abortion; the fifth did not abort, and she recovered; the last was in the fifth month, the fourth case was in the fourth month, the first three were in the third month.

The *sequelæ*—Recovery is often accompanied by painful inflammatory swellings of the extremities, which may form abscesses; these have been treated successfully by moist carbolic and boric acid applications. These peculiar infiltrations were noticed in thirty patients, particularly in those who had received numerous subcutaneous camphor or ether injections. As a result of the cholera infection there was noticed an exanthematous rash, much like measles or urticaria, which suddenly disappeared; of the patients on whom this rash was noticed all recovered.

In two cases there was infiltration of the joints, probably aided by articular rheumatism; one patient complained of sleeplessness during convalescence.

The *treatment* consists first in the extirmination of the bacteria; second in eleminating the toxin from the system, and supplying the loss of water. The first indicated were antiseptic liquids given by mouth; the creolin, so highly recommended at first was used twice daily in five gram doses in hot tea, but was found not only to be inefficient but dangerous, since its unpleasant taste usually excites vomiting, or at least a burning in the throat and eructations.

Toxic symptoms were not noticed after the use of this drug; capsules of creasor were also ineffective; salol was also used with negative results; lactic acid and hydrochloric acid were also used without benefit; opium was of little or no use. There remained but two remedies, calomel and tannin. In cases of a milder type in which the pulse was strong, 0.5 of calomel was given two to three times within the first two hours, followed by 0.05 gram every two hours, stopping the remedy at the end of two days.

A one per cent. solution of tannic acid, at a temperature of 38° to 40° as recommended by Cantani, the enteroklysis, per rectum, was used, injecting as much as the bowel could hold, the patient being placed in the knee chest position; this was performed every three hours. It was rejected frequently, but found to contain large quantities of comma baccilli. Some patients complained of the taste of tannin, which, however, was favorable, in that it showed the injection had passed the ileo cæcal valve. 202 patients were treated with these injections, 100 of these recovered. It is important to remember that a number of those died who had been brought in the last stages of the disease and had received one or two injections ante mortem, but had been beyond human reach on admission; calomel and tannin used at once, gives the best results, forty having been treated in this manner with twenty-eight recoveries. The cholera poison paralyzes the nerve centres, particularly those of heat production and the vaso motor system. The loss of water produces a thickening of the blood, interferes with the circulation and oxygenation, hence the necessity for a rapid action upon the circulation, which in turn will thin the blood. This can be done by the intra-venous and subcutaneous infusion of liquids.

The former was performed by Prof. Rumpf, of Hamburg, who stated that the hyperdermic use of salt solution gave less desirable results than the intravenous injections.

The author, however, does not coincide with Prof. Kumpf, since, on the whole, twenty patients having been treated with intra-venous injections using the vena mediana, the method was unsuccessful, all the patients having died. One patient in particular having received five injections at different times; the immediate result after each injection being very encouaging, this lasted, however, only fifteen

minutes, and the collapse became greater than before, until at last death ended the scene. Another case brought in pulseless received a subcutaneous injection of 600 cubic centimetres of the physiological saline solution into the thigh. A few hours later there seemed to have been but little absorption of the fluid and the pulse scarcely perceptible; 800 centimetres were injected into the vein, the pulse remaining the same, the condition of the patient hopeless. On the evening of the same day 1000 cubic centimetres were injected into the abdominal walls, in the morning the fluid had all been absorbed, the pulse could be easily felt; the camphor injections were then given every ten minutes, this aided materially towards improvement. The patient was able to speak, her condition being markedly improved. The author never noticed any thing more than a slight redness over the seat of injection; the infiltration caused usually subsided in a few days. About 350 such subcutaneous infusions were administered to 215 patients, of whom 66 recovered.

Under the head of symptomatic indications the author mentions woolen blankets, warm bottles, hot cloths, rubbing the extremities, etc., as means to raise the temperature; internally the administration of hot wine, coffee or tea; the subcutaneous injections of camphor, if necessary, as often as every 10 minutes; sulphuric ether frequently produces abscesses and, being generally painful, was not used.

Hot baths, temperature from 28° to 35°, more often failed, collapse setting in instead of the excitation and warmth mentioned by others. The cramps in the muscles were treated by hypodermic injections of morphia, often in large doses, bearing in mind the possible paralyzing action upon the heart; vomiting frequently ceased after the injection. The nourishment, as long as the diarrhœa kept up, consisted chiefly in oatmeal gruel, to which was added some red wine. The author was as helpless in treating the uræmic symptoms as others had been.—*Mŭch. Med. Wochen.* No. 3 and 4, 1893.

A CASE OF PNEUMONIA WITH REMARKS.

E. J. KEMPF, M. D., Jasper, Md.

I am five feet ten inches in height, 150 lbs in weight; am a dark blonde and have gray eyes; am thirty-five years old; a physician. I am of a nervous temperament. I am subject to urticaria, sick-headache, neuralgic pains in the shoulder-blades, and to bilious attacks. I am used to an outdoor life. I do not smoke or chew tobacco. I have always been a moderate drinker, never an abstainer. I am inclined to worry.

For several weeks in December, 1891, I had been complaining of a simple bronchitis accompanied by symptoms of an indefinite nature, such as a feeling of general malaise, biliousness, constipation, headache, lose of appetite, and nasal catarrh.

On my way home from a professional call into the country I had a chill, and I felt as if my left lung was not all right. I could not use it freely. I stopped at a country saloon and got me a whiskey with which I took ten grains of quinine. This quickly took effect and I felt better.

That night, December 22, I did not sleep a wink, and I sweat until the bedding was soaked with perspiration. The next morning my temperature was 99°F. I dried myself, dressed, got up, and attended a patient in my office. I then went to the well and drank a pint of cool water. I noticed that the water was unusually cool and nice. I also noticed that the things on the breakfast table looked absolutely sickening, so much so that I had to go out of the room. I now came to the conclusion that I was really sick. The sputum was rusty, and my side felt as if it had a board in it. During the day I took ten grains of blue mass, ten grains of quinine, and five grains of hyoscyamus extract. I urinated with difficulty, and urine being as red as sassafras-tea. During the night I sweat profusely as I lay awake counting the ticking of the clock, and wondering when the morning would come.

In the morning I got up. No sooner was I in the erect posture, than I was attacked with a severe stitch in the side. No pen can describe the severity of that pain. I gasped for breath, and I held my side, until the pain let up a little. Then I sat on the floor, mainly because I knew that if I sat on the floor I could not fall. I told my wife, that, at last, I had to give up, and that she would have to send for some one else to help her in her trouble; she was in labor.

Up to this time I had fought back the sickness, but it had finally overpowered me. By-and-by Dr. J. A. Salb came and attended my wife. He inquired about me, and after making an examination of my chest and of the sputum, he said, "yes, you have pneumonia." That night I took ten grains of quinine and ten grains of Dover powder, and sweated and counted the ticking of the clock as on the previous nights.

In the morning I could not urinate, and I tried to pass a catheter myself but failed because the urethra was very sensitive. Dr. Salb called on me, and found, so he said, my pulse good, temperature 104°, tongue coated and full of small herpetic blisters which were quite painful. He catheterized me, gave me a hypodermic injection of morphine and atrophine for the pain in my side, and directed the nurse to give me a saline cathartic. During the day I took five grains of quinine and ten grains of antipyrine alternately every three hours. Toward noon the saline caused me some griping, and I ordered my nurse to mix four ounces of glycerine, four ounces of epsom salts and a pint of warm water, which I injected in my rectum with the most ultra effects. For the next half hour I became a raving maniac. After it was all over I fell into the bed completely exhausted. Nevertheless, the severe purging I had undergone seemed to make me feel very much better. The catheter had to be used twice a day, morphine and atropine were injected into my side about every six hours to ease the pain. A blister was put to my chest, followed by the application of dry poultices. Dry cups were applied to my back.

The nurse, Mrs. Gutgsell, was to my aching eyes and weary limbs kindness itself. For the next two weeks she and I did not part company.

For fourteen days and nights I could not sleep, that is as far as I know. During this time I lived over my whole life-infancy, childhood, youth, school days, and college days. I was back again in past experiences. Time was no object and I was soon in the present. I travelled over the United States from end to end; over the Pacific Ocean landing in Asia; through India, over Asia into Africa; through the wilds of Africa shooting lions and elephants and stealing negroes whom I sold to the Turks; next into Palestine and then throughout Europe back again to America. The ordinary modes of travel were no longer good enough. The doctor put me and my nurse into a pneumatic tube and away we flew. In this way we visited not only every country, but also every city and hamlet on the globe. This too no longer suited my very active mind, and I now hired me a star. On top of it, my nurse and I flew through the universe. Millions of miles were passed in a flash, uncountable worlds were visited, unspeakable scenes and nondescribable scenery were looked upon, and untold millions of people on never-ending streets were met. The mountains were miles high, the valleys immense, filled with beautiful cities. Just imagine a street a million miles long with a row of houses on each side, of all sizes and shapes, all built of marble, granite, silver, and gold, lighted with electricity, and embellished in every fantastic way.

And then with a start that made the bed crack I was back in the room. The pictures on the wall glared at me, the wall-paper was a mass of living, moving creatures. Little Brownies were everywhere. They crawled into the medicine-bottles and crawled out again, making grimaces at me. If I shut my eyes a perpetual panorama passed before me, if I opened them everything took shape and action. I felt as if my room was in some cave, as if the earth were in some unaccountable way pressing down upon the room. I knew every body, understood every word or whisper of the nurse or the doctor or the visitor, and heard every noise in the house.

I often think over these things I here narrate, and on no condition would I efface these, to me, actual experiences from my memory.

As soon as the crisis came and resolution commenced I felt some relief. I

could now sleep a few hours at a time by taking fifteen grain doses of chloral hydrate. A sa tonic I took syrupiodide of iron and syrup of the hypophosphites, and also tincture of nux vomica and the compound tincture of gentian. I also had my chest painted once a day with tincture of iodine, and must say this felt grateful. I took malted milk in hot coffee, and a glass of hot milk occasionally.

It was several months before I could resume my practice.

Remarks. During a practice of fifteen years in this country, I have met with many cases of pneumonia, at all seasons of the year. The bulk of the cases occur during the winter and spring months. Cases occur in groups, that is, if a doctor got a case of pneumonia, others generally followed. Cases occur after a north-east wind, especially if accompanied by a few rainy days. Cases occur in people who expose themselves to inclement weather, whilst suffering from some temporary indisposition.

Cases occur in families. My father and my grandfather died of the disease, I had it once, three of my boys have had it. In my experience as a life-insurance examiner, I found that where one of the parents, or grandparents had died of pneumonia, another had died of puerperal fever, or erysipelas, or meningitis, or chronic bronchitis, or typhoid fever, showing a predisposition to these diseases. Frequently have I treated erysipelas in people just convalescing from pneumonia, and more rarely has pneumonia been a sequel to erysipelas. Statistics show that puerperal fevers occur more frequently in the months of February and March, during the time that pneumonias are prevalent in the land.

If you have a patient suffering from chills and fever, or ague, or malaria, more than likely he will have pneumonia later on. If you know of a person suffering financial reverses, or burdened with some sorrow or trouble, watch for pneumonia as one of the diseases most likely to occur.

Persons, who in infancy have infantile eczema, who later on suffer from urticaria, boils, herpes, headache, vague pains, rheumatism, erysipelas, lumbago, sciatica, bilious attacks, indigestion, neurasthenia, or "the blues," all are liable to pneumonia, and they are generally bad cases.

Pneumonia never occurs in a healthy person. The disease is preceded by a period of ill-health. The patient is constipated, because the liver, stomach, and intestines are inactive. The kidneys are overcharged with work and become clogged. The urine becomes high-colored and full of uric acid. The blood is changed and is filled with battling pneumococci and white corpuscles. The brain suffers and so also the nervous system. I sometimes have thought that future medicine will class pneumonia as one of the neuroses.

Nevertheless, pneumonia is a specific fever, self-limited, but not to be cut short. It occurs in persons predisposed to the disease. The disease itself seems to be a crisis which the system undergoes, and the system acquires an impunity to the disease for a longer or a shorter time. But those who have the disease once can make up their minds for another attack. Not because an attack predisposes the system to another attack, but because the condition of the system makes it a fertile soil for the pneumococci.

Though pneumonia cannot be cut short, it can be prevented. How? Let those predisposed to the disease, regulate their mode of life, regulate their diet, abstain from alcoholic liquor and tobacco, wear flannel next to their skin, avoid the taking of colds; above all, throw care and worry to the dogs.

Remember that, in uncomplicated pneumonia, the heart is not diseased. It is the blood and the nervous system that is out of fix. And all the organs, excretory as well as the lung and heart, are suffering.

The question is whether the liver and the kidneys are often not as badly clogged as the lungs. Have you seen cases of pneumonia complicated with swellings of the parotid and other glands? Such cases were to my mind like those of metastasis in mumps. In such cases the kidneys act very poorly, and the disease generally ends fatally.

As to *treatment*, it is well to commence a case of pneumonia with small doses of calomel or blue mass, afterwards to be followed by an occasional saline. Quinine can then be given because it seems to do good in all cases, especially where there has been malaria in the case. Opium is useful as an anodyne, and it seems to limit the amount of hepatization in the

lungs if it is cautiously used. Morphine and atropine hypodermically used is a specific for the stitch in the side, whether due to a pleurodynia or a local pleuritis. Whether digitalis does any good in pneumonia I am not prepared to say, but I think we have other remedies that will do more good if the heart needs stimulating. Alcohol, and carbonate of ammonia, nitroglycerine, strychnia, cactus, all are safer and more reliable. In cases of irregular heart with inaction of the kidneys, digitalis may do good and should be tried. In the earlier stages, where the fever is high, antipyrine or aconite cautiously used may be of service, but I am fully convinced that baths, either the sponge-bath or the wet-pack, should be preferred. In the later stages, muriate of ammonia and iodide of potash with the bitter tonics and the iron preparations and good food, all may aid in hastening the recovery of the patient.

But remember we have no specifics for pneumonia. Each case must be treated by itself. Treat the symptoms and trust to good nursing. As to feeding, I am fully convinced that pneumonia is not one of the fevers that should be fed. The intense disgust for any and all food, which accompanies the earlier stages of the disease, and which must be experienced to be fully appreciated, should be respected. A little water given often, and a little milk, and alcohol if needed, is all the food that I give my patients in the first two stages of pneumonia. During the later stages and when the appetite returns, give your patient easily digested food. Malted milk is one of the best I am acquainted with.

Locally, I use mustard plasters or blisters in adults in the commencement and poultices later on. In children I direct the local application of turpentine liniment and cotton-pads. To aid resolution I often apply tincture iodine or dry cups to the chest.

I pay particular attention to having the room well ventilated, always at a temperature between 65° and 70°F., and to have some steam in the room to keep the air from being too dry. I keep the room quiet, and insist upon constant attendance by a nurse.

In conclusion I would remind the reader that this is not a treatise on pneumonia, for such I refer you to the text-books, but it is a plain expression of some simple ideas and experiences of mine with this interesting and important malady.

SOCIETY REPORTS.

THE MEDICO-CHIRURGICAL SOCIETY OF LOUISVILLE.

Stated Meeting, April 7th, 1893.

The President, Dr. F. C. Simpson, in the Chair.

UTERINE POLYP.

Dr. W. O. Roberts: Day before yesterday a lady sent her husband to my office to ask me to send her a pessary to hold up her uterus which was out of place. The woman is fifty-two years of age, very large and fleshy, and never had any children. I told the husband that I could not do anything without first examining the case thoroughly. He sent for me to-day. I found protruding about a half inch from the vulva, a polyp that seemed about as large as my thumb. The dedicle extended up into the neck of the uterus. I removed the growth after ligating the pedicle, and present the specimen for your examination. The patient thought it was her womb.

It calls to my mind a case which I had some time ago. A young woman who had been a widow for several years, consulted me and said that she had not had her period for a little over six weeks; shortly after that I was sent for and found her flooding. By digital examination I found what I took to be the membranes protruding. I grasped the mass firmly

with my fingers and tried to pull it out but it would not come. I inserted a tampon to stop the hemorrage and the next day I found the substance protruding still further. I made a more careful examination and discovered that, instead of a miscarriage, it was a polyp trying to get out of the uterus. The woman was having regular labor pains and at first I felt satisfied that it was a miscarriage.

ENLARGEMENT OF CERVIX DURING PREGNANCY.

Dr. J. G. Cecil: Dr. Robert's remarks recall to mind a case that I saw last year at the University clinic; while it was not a polyp, it was one of those peculiar freaks of nature which we sometimes meet and which, for a while, keeps us guessing as to what it is. It was an enormous enlargement of the cervix with the woman pregnant five months. The cervix was so enormously elongated and enlarged that it had prolapsed until there was a tumor fully as large as a man's fist resting outside the vulva. At first I thought it was a sub-mucous fibroid which had been extruded by contraction of the uterus and was being retained by the pedicle. An examination of the part that was resting on the vulva revealed a hole in the lower part of it which would easily admit the full length of the finger. I introduced a sound into this opening very carefully, not suspecting at the time that the woman was pregnant, when to my surprise the sound entered seven or eight inches. The tumor was very much ulcerated, discharging a foul pus. She was walking about with this prolapsed cervix outside. I replaced it by putting her in the knee-chest position, greasing the tumor with vaseline and then making pressure upon it reducing it in size until it slipped back. I then applied a tampon and sent her to the hospital. Up to this time I had not made up my mind fully as to the nature of this tumor, because I could easily discover a tumor above which had especially the appearance of the womb, and I could also ascertain a direct connection between this tumor which was outside the vulva and the womb, for I could probe it to the depth of seven or eight inches; I was somewhat puzzled as to what it could be. After it was retained in position for a while and had reduced very much in size, an abortion came on which demonstrated the facts that the woman had been pregnant for five or six months; that the child had been dead for probably a week or more, being much macerated and decomposed. It was a peculiar case and one that might easily be mistaken for almost anything, but under conservative treatment, watching it and waiting for developments as to what it could be, the case turned out very well for all parties concerned. It is simply one of those oddities which we occasionally meet in shape of tumors coming from the vagina, resting in the vagina or being directly connected with it

TUBERCULOUS KNEE JOINT—AMPUTATION.

Dr. W. L. Rodman: This specimen was taken from a young man twenty-seven years of age, who gave the history of tuberculous disease of the knee joint for the past eighteen or twenty years. Examining the limb very carefully, I noticed that there was at least two to two and one-half inches shortening of the leg and altogether it looked a very unfavorable case for resection. I sent him to the Norton Infirmary with the full understanding on his part that a resection would be done, but if the bone was found to be involved to any great extent we would amputate his leg at about the lower third of the thigh. An incision was made and the joint resected. As we expected we found a large abscess cavity in the inner condyle of the tibia; also one in the inner condyle of the femur. These abscess cavities extended deeply into the bones; the one in the inner depression of the tibia extended down to the medullary canal, communicating with it; the one in the femur extending up at least $1\frac{1}{2}$ inches. We decided that it would be jeopardizing the patient's life to an unwarranted extent to attempt resection and, even if we succeeded in saving his life, we could not give him a useful limb, so the member was removed just above the knee. I present the specimen to show the abscess cavities in the lower end of the femur and upper end of the tibia.

Resections of the knee joint do not do any too well at the best, and I think anything else but amputation in this case was out of question. There were a number of fistulous openings, two or three of which were discharging at the time. The patient has done very well since the operation, eight days ago.

DISCUSSION.

Dr. C. Skinner: I saw the case with Dr. Rodman before the operation, and had the pleasure of seeing the operation performed. There were two or three features in the case that to my mind opposed resection. In the first place the poor limb that you get at that age, and the risk you run in any resection; further the extreme shortness of the tibia made it unreasonable to suppose a good limb would be obtained by resection. Although the man was twenty-seven years of age he had a tibia of about nine or ten years; there was at least two and one-half to three inches shortening of the limb existing which would have made the shortening at least four inches after resection. Artificial limbs are so well made now that I think they are of more service than limbs so short as this one would have been after resection. We were surprised at the depth of the abscess cavities in the bone at the time of the operation, but were not at all surprised to find the accumulation of pus.

Dr. W. O. Roberts: I operated on a case something similar to this a few days before Dr. Rodman operated. The patient was a girl in this city who had suppurative disease of the joints since childhood. The tibia in her case was nearly four inches shorter than that of the sound side, still she had been able to be around with the aid of two canes. I simply did an amputation without making any attempt to resect. In the case operated upon by Dr. Rodman I do not see any other course that could have been pursued. I do not think it is necessary to attempt in these cases to save the limb, especially where the bone has become involved to the extent that this specimen shows. As a rule resections do not do any good where it is necessary to take off much bone. In young subjects, of course, we are wery careful not to do resections where there is disease of the bone itself, because if we take off much bone the limb ceases to grow. Although this man had probably gotten his growth, owing to the extent of the bone involvment there was really no other course to pursue except amputation.

I operated at the Norton Infirmary last fall upon a man sixty years of age, who had an osteo-myelitis; after twice sawing off the bone I still found the medullary canal diseased, and with a spoon I scraped it out clear up to the upper end of the bone, then introduced a drainage tube. He got along beautifully and now has a stump on which he can use an artificia limb.

CHOLECYSTOTOMY.

Dr. A. M. Vance: Nine days ago I was called to see a woman fifty-seven years of age, with the statement that Dr. Dugan had been called the day before and had told her that she had appendicitis. I made a careful examination of the woman and came to the same conclusion. There was quite a tumor in the region of the appendix, extending well down into the pelvis, very sensitive, particularly at a point midway between the anterior superior process of the ilium and the umbilicus. She gave the history of having had a similar attack about a month before. I advised her to go the Norton Infirmary at once and have an operation performed. I made an incision in the region of the appendix and came immediately upon a tumor that looked something like the kidney, but as I had gone through only one layer of peritoneum I knew it could not well be the kidney. Upon further investigation I came to the conclusion that it was the gall bladder. I aspirated, removing quite a quantity of mucopurulent material (flaky) possibly with some pus in it. I opened the gall bladder, after packing around thoroughly with gauze to prevent the cavity being entered by any of this material, and removed five gall stones at once, and pressing my finger high up in the enlarged bladder I dislodged, with considerable difficulty, this very large stone which was fastened in the cystic duct. The gall bladder was carefully stitched to the abdominal wall, cavity of gall bladder being packed with gauze. The woman made a good recovery.

I will add that there was very little discharge for the first three days. Then there was free discharge of bile, entirely relieving the pain which she complained of in the region of the liver. This case proves how many things may occur in the abdomen, and how parts can be shifted from one locality to another. I remember Dr. Dugan operated upon a similar case some time ago at the Norton Infirmary, removing an enormous quantity of gall stones.

DISCUSSION.

Dr. W. O. Roberts: Were you able to examine the liver?

Dr. A. M. Vance: Yes. The liver seemed to be in a perfectly healthy condition.

MICROCEPHALUS—OPERATION.

I would like to mention another case I operated upon yesterday for Dr. Barbour. The patient was a microcephalic child, two years of age, which I first saw when it was a little less than six months old. Osification of the skull seemed to be perfect then and the child seemed to be very peculiar, having each day a number of epileptic seizures or spasms. I gave it as my opinion then that the child would probably be an imbecile. It has gone on for two years maintaining its physical condition completely but showing no signs of intelligence whatever. I took it to be a typical case for craniectomy, and the parents were very anxious to have the operation done. They investigated the case thoroughly, having been to Chicago and other points for the purpose of discussing the question with other surgeons. Yesterday I made a section of the skull. The child bore the operation wonderfully well. The operation was done very quickly, being finished and dressed in twenty minutes. I present here the bone removed and several instruments which have been devised by different surgeons for doing this work. I first made an incision in the scalp, then with a trephine took out a small button from the frontal bone just above the sinus, afterward making a section to the occiput with the bone forceps which I present here with the specimens. Hemorrhage was very slight. The child is in good condition to-night. It had some little reaction yesterday, temperature going up to 103° F. shortly afterward quieting down to 100° F. There now seems to be much less evidence of nervous irritability, and the muscular movements which were invariably present are greatly improved. The mother thinks there is quite a good deal of difference in its manner, etc., but I do not know whether she imagines this or not. It is the second time I have done the operation, the first being a child nine years of age, a typical case of microcephalus. That child died seven hours after operation.

DISCUSSION.

Dr. Wm. Cheatham: The patient referred to Dr. Vance was brought to me some time ago for examination of the eyes. The child was very restless and fretful, having spasm etc., and it was very difficult to make diagnosis. However I discovered that there was atrophy of both optic nerves.

Dr. A. M. Vance: The eye symptoms have disappeared since the operation. I saw the child two days before the operation was performed and there was no evidence of intelligence; I passed bright objects like my watch before its eyes, but no attention was paid to it. Since the operation the eyes will follow my watch when passed before them and are perfectly steady. Certainly some change has taken place but what the final outcome will be it is hard to say.

Dr. W. L. Rodman: I think Dr. Vance acted very wisely in operating upon one side only in this case, that is, at one sitting. I heard Dr. Keen express himself very freely upon this subject about a year ago. I saw him do one operation of the kind upon a patient six or seven years old. He referred to the operation as done by Dr. Wyeth, which is to operate on both sides at one sitting, when the fingers are inserted in each opening and the bones spread apart forcibly. Keen thinks there is too great an amount of shock when both sides are operated upon at once—he has never done the double operation. The case I saw him operate upon in the Jefferson Hospital a year ago, never had a bad symptom, leaving the hospital in about a week. He, however, expressed very little confidence that the operation would do any good. It was not a very promising case for operation.

FISTULA IN ANO; OPERATION.

Dr. A. M. Cartledge: I present this patient to show one feature that is a little remarkable. It is the most extensive fistula-in-ano that I have ever known to get entirely well after one operation. There must have been in all 28 inches of fistulous tract dissected out. The patient is about 55 years of age and says that he first began to have trouble with the rectum about nineteen years ago. The operation performed about a year ago. You will notice one fistula extended across the perineum to the scrotum and several in

other directions; only one went into the bowel. There was evidences of lung infiltration and he was placed upon hypophosphites and cod liver oil and now seems to be in very good health. He was under treatment about three months.

ENURESIS DIURNA.

F. C. SIMPSON, M. D: I bring before the society to night "Enuresis Diurna," a disease that gives us a great deal of trouble to treat with satisfaction. I have, in the past four years, come in contact with quite a number of cases of day wetting, and one or two I have failed to treat with as much satisfaction as I should like. I have tried any number of drugs and failed to get relief for the poor, unfortunate little fellows. You have one of the most frequent causes in a tight prepuce, which keeps the gland bathed in smegma, which macerates the gland and sets up an irritation that results in incontinence. Yet when you stretch the prepuce or circumcise, you find them going along, having the same trouble as before the operation was performed. We have certain nervous elements that seem to play a very important factor in the little fellow's trouble, but when you relieve the nervous trouble the child continues to wet his clothes as before. You have the distressed mother appealing to you to do something that will relieve her afflicted child of such an obnoxious habit, and you take a list of drugs and prescribe them in rotation, to find that you have failed to do what you have promised the mother you were going to.

I do not suppose there is a member of this society that has not had just such experience as I have related, and finally given to the mother the cold comfort of saying the child would out-grow it as maturity was approached. Can we afford to allow the child to wait so long with such a disgusting habit? I say not. I can only say that the child that is not relieved by the ordinary drugs has a cause for his incontinence that is worse than the incontinence, and that is masturbation. And you will find when you treat them for masturbation they are relieved and get well. You must keep a close watch on them, for they are sly and will repeat the act as soon as the blisters heal. You must have complete control over your patient or you do him no good. If you make close inquiry of the mother, you will find that she frequently catches the child rubbing the parts, this results in an erection and immediately the little fellow has made water. He is unconscious of the desire until he finds that his water is trickling down his leg and his clothes are wet. You find that the majority of these patients play with the parts. The question of masturbation is becoming quite a serious one for the physician to cope with, and experience brings this question up quite often during the year.

You may have muscular debility of the neck of the bladder, or the internal sphincter is sometimes a part of the muscular incompetency which is found among different classes of children. Dr. Jacobi speaks of masturbation as not an uncommon cause of incontinence of urine. In his paper on masturbation in childhood he has directed the attention of the profession to the frequency of the habit with all its consequences. In the young, the *caput gallingi nitis* is quite large, also Cowper's glands and the vesical prostate are sufficiently developed to result in erections. The constant irritation of the parts by self-abuse leads to a chronic inflammation of the whole prostatic portion of the urethra and the neck of the bladder, which is very sensitive.

My experience with these cases is that I find this condition to occur in children from five to eight years of age. I speak only of that class that are free from the trouble at night and suffer during their waking hours. I have found tight prepuces in two cases. They were circumcised with relief as long as the wound did not heal, but so soon as the parts were well they returned to their old habits. In both cases I blistered along the dorsum of the penis and down on the perineum. I found that as long as I kept the blister from healing they did not suffer from the incontinence. It was some time before they had any return, but when they began their old habits of playing with the parts, the incontinence returned with the same regularity as before the blistering. I had to repeat the blisters on one, three, and the other four times, before I controlled the habit and it is now four months since either one has suffered from any trouble of that character. I do not question in either of these cases that the cause of the incontinence was masturbation. I base my belief upon the fact that the mother of both

these boys would catch them playing with the parts and almost immediately following they would wet their clothes; and one mother told me that she found the little fellow frequently with an erection when she caught him playing with the parts. You find that these children are exceedingly nervous little fellows. They have loss of appetite, seem to be debilitated and show some mental hebetude.

In regard to treatment, I will say that I have gone all through the list of drugs and find in these intractable cases that you cannot do anything for them except frequent blistering, which must be persisted in until you give them relief. I have yet the first case to see it fail in and I have seen circumcision, atropia, rhus aromaticus and all the drugs that do good in a great many of these cases, fail signally in giving any relief more than temporary.

DISCUSSION.

Dr. E. R. Palmer: The subject of masturbation in childhood has received a great deal of attention of late years, and very deservedly so, and all physicians who come in contact with such cases should strive if possible to classify them and to relegate the patient to that class to which he distinctly belongs. A masturbator at five years would necessarily fall into the class of "congenital onanism." A child who is instructed by playfellows in onanism, it will be found from examination of authorities on the subject, is rarely so instructed before his eighth year, while it is very common for them to be instructed by their playmates, nurses, etc., any where from eight to thirteen or fourteen years. A child may inherit a pathological condition of the nervous system that tends to produce congenital masturbation and may become a masturbator almost immediately after birth. Classification should be with the view of determining the management of the case. I think those of you who will study the works of Von Kraft, Ebbing on the subject of psychopathia sexualis will be surprised at the remarkable uniformity of cerebral abnormalities in the ancestors of these children. There is, perhaps, nothing that is more hereditable than sexual perversions. You will find in an exceeding large number of the cases collected in Europe, that insanity is a prevailing condition in the immediate antecedents of the children. You will find various forms of cerebral perversions in the way of epilepsy, hysteria, melancholia, etc., etc. One remarkable point or characteristic is the especial fondness for music on the part of the male members of such families.

In the matter of therapeutics, I can well see how a boy that has been taught to masturbate, may be benefited by such local means as described by Dr. Simpson, and perhaps this, in connection with a little moral persuasion, constitutes our chief means of treatment. But in a congenital masturbator, inheriting from one or both sides that condition of the nervous system which in numbers of instances leads to congenital self-abuse, the difficulties of any local treatment may be easily recognized. This class of cases should be treated exclusively by the same line of practice as is employed in pronounced forms of insanity. It is a form of insanity inherited by the child. All those means calculated to increase the physical development of the child and to counteract his unfortunate hereditaments should be the chief concern of the doctor. I do not believe that these cases of congenital onanism can by any possibility be cured by local counter-irritation or by drugs, but the treatment should be directed to the physical and moral nature of the child. It is not simply a matter of daily involuntary discharge of urine to be corrected, but it is to save the child from the sexual perversion and other horrors that follow in the track of the mental obliquity that first manifests itself in congenital masturbation. Certainly this is a matter that should be looked into with the greatest care, not simply because of the primary trouble, the daily involuntary discharge of urine, but because of the graver dangers that threaten the child when he comes to man's estate.

Dr. J. B. Marvin: Dr. Palmer has spoken of only one aspect of the subject and I agree fully with him on that point, but I differ very radically with the essayist in narrowing down these cases of enuresis diurna, nocturna and occasional, to masturbation. A very large proportion of these cases are not due to masturbation. I see a great many cases of this kind, and relief usually follows the ordinary treatment, watching the diet and especially the amount of water they use, etc. I have never resorted to the methods laid down

by the essayist for the treatment of this condition in children. There is no question that the sphincter is very slightly developed in the child, which may explain why they cannot retain the urine. The sphincter becomes more developed after a certain age and the child can then hold his water. I do not think it proper to class these cases under the head of masturbators.

Dr. J. A. Larrabee: Ten years ago I became interested in this subject. I notice that the paper simply included males, therefore I do not suppose the discussion pertains to female children, who are about equally affected by the habit of masturbation, in my experience, but I would like to mention three cases I have recently seen. The children are all female, aged five, six and ten years, and all masturbators. In two of the cases I found the trouble to have been excited by a condition not yet mentioned, that is the presence of ascarides in the rectum. I believe this is possibly a factor in a great number of cases. These two patients were relieved by getting rid of the worms. The irritation produced in the rectum, or the possible presence of ascarides in the vagina, probably directed the attention of the child early to these parts, and the slyness and manner in which the child of six years resorted to the act of masturbation, if it had not been serious, was somewhat amusing. She would steal away by herself, get on a chair and immediately commence a system of wriggling. Her face would become red, the orgasm would be reached and she would drop back exhausted. This was repeated from twenty to thirty times a day.

While I am inclined to believe that many cases of enuresis may be due to the cause spoken of by Dr. Simpson, I agree fully with Dr. Marvin that the vast proportion is due to other causes. I think the nervous element spoken of by Dr. Palmer may have a great deal to do with these cases. The children of nervous parentage are liable to develop not only this condition, but all the train of nervous symptoms. Such children are prone to chorea.

I have never had to resort to the measure of blistering or keeping the parts sore, in the treatment of enuresis. The paper, I suppose, does not include the ordinary bed-wetting. Dr. Watson read a paper before the American Medical Association three or four years ago, including a very large number of children treated for enuresis, incontinence of urine both day and night, and the success of his treatment was so remarkable that I have adopted it. Of course, we all use sedatives to the bladder. We use belladonna, etc., but I do not think we use these remedies exactly as he does. Watson makes a solution (and we know the tolerance of children to the drug) of one grain of sulphate of atropia in one ounce of distilled water, giving as many drops as the child is years old. Probably the average dose would be five to eight drops. This is the point I want to emphasize and impress upon those who use belladonna, viz: that in order to obtain the desired result it is necessary to produce the physiological and even the toxical effects of the drug. I remember the last case I treated was a child sent to me from Peducah, Ky. This child had belladonna delirium following the administration of the drug, and as soon as this was produced, the bed-wetting, which had lasted for four years, ceased and never returned. Watson says very properly that unless the drug is pushed to that extent, a cure will not follow.

Of course in the treatment of enuresis, there are other things which should be taken into consideration. Many cases are due to a condition of the urine, and that should be attended to. In some cases I have resorted to the use of benzoic acid, in others it has been necessary to give turpentine, cantharides, etc. Where a tonic treatment is indicated, I have found nothing better than syr. iodide of iron. I want to record these remedies as having been successful in my practice.

Dr. E. R. Palmer: I believe Prof. Harrison has shown that it is not the sphincter interna but the prostate that controls the urine. It has been shown that the prostate is not a gland but a muscle with gland follicles embedded in it. The sphincter is so weak as to be practically of very little use even in adult life, while the prostate surrounds the neck of the bladder and controls it by contraction. This explains why a boy is eventually able to retain his urine—the development of his prostate which comes in later years.

Dr. F. C. Simpson: In the paper I called attention to what seemed to be incurable cases—patients that have been

treated with every possible care and with every drug that is known to the profession to be beneficial in conditions of this kind and still continue to wet the clothing. There is no evidence of it at night; they go to bed, sleep well and do not wet the bed during the night. I cannot attribute it to anything except the tendency to masturbation. As a proof that the trouble is due to masturbation, I will state that while the parts are kept blistered the urine is retained, but as soon as healing takes place the clothing is again wet.

I do not mean to say that all children who suffer from this condition are masturbators. I stated intractible cases. I could discover no other cause.

Dr. Wm. Cheatham read an article which will appear in next week's REPORTER, on

LEPTOTHRIX MYCOSIS OF THE TONSIL, PHARYNX AND BASE OF TONGUE.

DISCUSSION.

DR. J. M. RAY: These cases of so-called mycosis are comparatively common. When I first commenced treating throat diseases, this form was called "chronic follicular tonsillitis." The fungoid mass springs from the crypts of the tonsils and therefore may often be taken for accumulations of secretions in the crypts; only the microscope will tell positively. In the last few years though, there have been a great many articles written on the subject, and it is now recognized by all throat specialists as due to some fungoid formation. Several cases that I have seen have been of a very aggravated form, in which not only was the tonsil involved, but also the pharynx and base of the tongue. You can take a curette and scrape out these growths, but they will return, no matter what form of medication is applied afterward. The only treatment I find to result in permanent cure is to destroy the follicle from which they spring. This can be very readily done by spraying with cocaine and applying the galvano-cautery.

DR. S. G. DABNEY: I have lately seen several cases of the character under discussion, and would like to make a few points in regard to the symptoms, diagnosis and treatment. I do not agree with Dr. Ray that follicular tonsillitis is the same as leptothrix mycosis. Differentiation between the two diseases is easy. In follicular tonsillitis the exudations are more yellowish in color and very much easier gotten out of the tonsil. In mycosis the growths are shaped like a spear and are very hard to get out. My experience is that in mycosis the patient complains chiefly of a foreign body in the throat. I have found more of the growths on the base of the tongue than on the tonsil proper.

In regard to treatment: Of course the best thing to do is to get out this little mass. Nothing I think is equal to the curette or forceps. I have used electro-cautery, but in the last two cases I have changed to chromic acid with much better result. Attention to general health is often needed. Usually the digestive system is out of order; sometimes we find a rheumatic tendency. The paper quoted by Dr. Cheatham was read by Dr. Knight at the last meeting of the American Laryngological Association. In the discussion which followed, the consensus of opinion was that the disease was best treated by removal of the formation, and the application of the electro-cautery with appropriate means for the general health.

DR. WM. CHEATHAM: There is no doubt in my mind that there is a follicular tonsillitis, as well as a tonsillitis depending upon mycosis leptothrix; and that there are many more cases of the former than of the latter. I have examined seven cases lately with the microscope and found leptothrix threads in but two; one case in which every follicle was filled with white masses, I could not find a thread. Some of these specimens, that of the latter case among them, I had a well-known microscopist examine with the same result as my own. So instead of a majority of such cases depending upon mycosis leptothrix, they are cases of so-called follicular tonsillitis.

DR. H. A. COTTELL: There seems to be some confusion of terms in the names applied to this affection. The term "leptothrix" is commonly applied to the schizomycetes, or microbes, while the term "mycosis" refers to mucoriani, or the moles. These are two distinct natural orders in microscopic cryptogmamic botany. Some of the moles may appear in chains, and might, perhaps, be called leptothrix, but the application of the term to moles, proper, is unusual if not incorrect.

The micro-organism of the disease described by Dr. Cheatham is similar in character to the oidium albicans, which is the parasite of aphthous sore mouth.

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SATURDAY, JUNE 10TH, 1893.

EDITORIAL.

THE SIGNIFICANCE OF THE BLACK-BALL.

The black-ball has become of too free use in our medical societies. There should be a more profound sense of its significance; it is a measure of reproach and odium—often cast upon an honored name through unworthy motives.

Our medical societies are medical schools—and their teaching should be as free as the common light that enters through our windows. Our interests are common and not individual. The gradual operation of our many educational agencies will make the culture of the few that of many, the truths of our medical science those of every physician's knowledge. These societies furnish helps and resources—open avenues for the investigation, discussion and development of the many complex questions of medical and surgical science. Closing doors to these institutions is narrow, selfish and un-American. It is resented by the spirit of a generous profession.

The few very fastidious, kid-gloved gentlemen who work their way into these associations for the prestige such membership may give them, need not fear contamination of their Lord Chesterfield manners or compromise of their personal or professional dignity by one who has crossed their professional paths and aroused their jealousy and prejudice or something worse. There is no rule of etiquette, professional or other, requiring that they should invite the more modest gentlemen to take a pretzel with them.

The black-balling class are usually men who will travel long distances to gratify a feeling of personal or professional revenge. Once informed or suspicioning that the subject of their "Royal disfavor" will be a candidate for membership of a particular society, they are on hand and actively engaged in a work of poisoning. They are unscrupulous as to means em-

ployed; they lose no time, spare no effort in bringing the ignominy, the opprobrium of defeat or rejection upon the candidate.

There is no disputing the fact that every body of men organized for a specific purpose, or, in brief, for any line of work whatever, have the inherent right to prescribe the qualifications requisite to admission to membership. In our medical societies these qualifications should be only those of a medical character—and then not extend to *how much* the physician knows—the inquiry should go no further than his legal qualifications. The law has wisely thrown about the profession all needed safe-guards. The only absolute bar should be infamous character, rendered such by grossly immoral conduct. But we hear of very few of the black-balls cast in our societies being upon moral grounds; it is exceptional that the motives governing are not personal. "Now I have a shot at him—and I have canvassed and rallied my friends"—says the man with the black ball. These societies should welcome into active fellowship every graduate of medicine.

There is no danger to be apprehended from weak men. They will find their level, will learn through professional contact how very little they know and will be given some impulse in the direction of improving themselves in the science they profess to practice. The teaching they will receive will make them more efficient in their work—more fruitful in resource.

If such is not the one great central aim, the intent and purpose of all medical organizations, what is? If they are not great schools they fail of any useful purpose. A medical society to represent an ideal educational body, must be broadly democratic in its policy. The more democratic and broadly representative of the profession at large our societies are made, the earlier and more thoroughly will all charlatanism and quackery be stamped out. Frauds upon the profession avoid all danger of hard pounding—they skulk away from the light.

There are many grand men, masters in their profession, who are successfully pursuing their calling about our country hills, and they are men whom a narrow, selfish and often malignant policy keeps out of our medical and surgical societies. The lessons of these men's observations and experiences would be of value to a body of the ablest men of the profession. They are often men of a high order of ability, thoughtful men, whose merits should be brought into public recognition.

The policy being pursued by our medical societies is averse to their healthful growth and defeats the high end these societies were instituted to serve. They should in the fullest sense be representative of general medical development and not only that of a select, exclusive and limited class, a considerable element of which are small medical politicians whose chief ambition is to become a Grand Sachem or a Keeper of the Wampum Belt, and not that of advancing the art and science with which their names and interests are identified.

The self-respecting physician will not attend medical meetings unless he can attend in the honorable capacity of a member; nor will he seek membership in a society where there is a risk of his having the stigma of a black-ball cast upon his private and professional character by those low-motived men of the profession, who are indifferent to the significance of their act; who are so dead to the instincts and promptings of a high professional manhood that they frequently boast of their mean endeavor to besmirch the character of a fellow in the profession. The motives too often governing in these cases are low, selfish, mean, unmanly, unprofessional and cowardly. And the men who use these honored bodies as avenues through which to serve some personal, selfish end, to gratify some vindictive

feeling, personal pique or jealousy, deserve the severe and swift condemnation of the profession.

While much of our science, many of the procedures and great truths that enter into our medical and surgical practice are hereditary, they were not entailed upon any one or any select few of our great family of physicians. No one man can assume the purple and shaking his little wand say "All this is mine." We have eminent men in our American profession whom it is a professional and patriotic pride to honor; they are men who have gained their position by resolute devotion to study and research, and the value of the work of these men lies chiefly in their clinics, their teaching through our medical societies and journals, and the value of that teaching is enlarged as the constituency of our societies and journals is enlarged.

After men pass from the schools there is no educational influence brought to bear upon them more potent than that of our medical journals and medical associations. In associations there is a union of minds, a striking of hands in joint effort to advance our knowledge. In the closer social relationship in which men are brought are found opportunities for improvement; it gives new excitements to endeavor and through it will be corrected many errors and crude opinions. It gives opportunity for the inter-communications of the digested experiences of professionally busy men, the lessons of the year—the results of their hard work, their observation, research and experiment.

There are many men in our rural towns, along our country sides, among hills and mountains, who could teach some of our modern professors. We would have them brought into contact. It would be refreshing to see the blush of ignorance tint a tough cheek. The professor, the shining lights and the hangers-on of our medical societies need not in their own knowingness and because of their few advantages, hold their heads quite so high above the multitude. It is true that it cannot be expected that a man with diseased sight will see much merit in his humbler brother.

This black-balling business has gone quite far enough. We have medical journals, conducted by men of distinguished ability, men alive and devoted to every interest of the profession, and we hope they will have a strong word to say upon a matter that has become a reproach to the profession.

We have great scholarly men at home—*Americans*—at whose feet we can sit for our teaching and need not to go abroad,—let there be no reserved seats where this teaching goes on. We are grateful for many valuable lessons taught by eminent men across the waters, and while we are willing foreigners shall weave some of our fabrics for us, we are not willing that they shall do our thinking for us. These societies are the nurseries of our higher medical education and to them there should be no closed doors.

THE NEW QUARANTINE LAW IN PENNSYLVANIA.

The main features of the bill are as follows:—

First—In view of the prospective establishment at an early date of a thoroughly equipped and effective Federal Marine Quarantine on the Delaware Bay or River, the Governor of the State of Pennsylvania is empowered, when satisfied that the United States has established and is maintaining on the Delaware Bay, etc., an effective and efficient quarantine to secure this Commonwealth against the introduction of pestilential, and contagious and infectious diseases, to suspend by public proclamation the operation of State quarantine in part or in whole at his discretion.

Second—The Governor is empowered under certain circumstances, to lease the Lazaretto Station, which station, however, must be discontinued for quarantine purposes after July 1, 1895.

Third—The Governor is authorized to acquire by purchase, etc., a suitable place on the Delaware River or Bay, either within or without the limits of Pennsylvania, for the establishment of a permanent State quarantine station.

Fourth—The State Quarantine Board is to be constituted as follows: 1, the Secretary of the State Board of Health; 2, the President of the Philadelphia Maritime Exchange, or a member of said Exchange, to be designated by him; 3, the President of the College of Physicians of Philadelphia or a member of said College, to be designated by the president; 4, the quarantine Physician provided for in this act; 5, the Health Officer, appointed in pursuance to the act to which this is a supplement; 6, the sixth member to be appointed by the Mayor of Philadelphia; 7, the seventh member to be appointed by the Mayor of Philadelphia. The members of the Board are to serve for various terms, so that all shall not go out at one time.

Fifth—The State Quarantine Board thus constituted shall make rules and regulations, not inconsistent with the laws of the United States and this Commonwealth, for the regulation and management of the Quarantine Station, etc.

Sixth—The Quarantine Board shall establish an office in the city of Philadelphia.

Seventh—The quarantine physican shall be the executive officer of the Quarantine Station.

Eighth—The time the act is to go into effect is July 1, 1893, from and after which date the officers of the Lazaretto, Physician and Quarantine Master shall cease to exist.

Ninth—Section 13 provides that the power of the Philadelphia Board of Health over maritime quarantine ceases when this act goes into effect.

An appropriation of $35,000 towards the cost of securing a site and equipping the same in conformity with the requirements of this act was passed during the last days of the Legislative session.

TRANSLATIONS.

CONTRIBUTIONS TO THE BIOLOGY OF THE CHOLERA BACILLI.*

The author (Dr. Uffelman) used for his investigations the watery cholera stools from which he obtained pure cholera cultures, using gelatin in solution. His results were as follows: In water such as found in the docks of Rostock and Oberwarnow, the cholera bacilli flourished for the space of from two to six days. If the temperature of the water ranged between 19° and 20° C., the cholera bacilli seemed to increase during the first fifteen or sixteen hours.

It is understood that this water was not sterilized, was motionless and not exposed to the sun.

Second. The milk of the cow is also a fluid in which the cholera bacilli will live for two days, even should in that time the milk become sour. In this medium also during the first twelve to sixteen hours in a temperature of 18° to 22° there is an increase of cholera bacilli.

Third. Upon slices of bread, not covered, the cholera bacilli remained at least one day; if wrapped carefully in paper they lived three days; if placed under a glass globe they lived one week.

Fourth. Upon the surface of slightly rancid butter they could be demonstrated from four to six days; in the deeper parts of the butter they lived but from one or two days.

Fifth. Upon roast beef, if placed under glass globe they were found after eight days. In smoked herring placed under similar conditions, they were living on the fourth day.

Sixth. The surface of fruit, if allowed to dry, will give them but twenty-four to thirty hours; if placed under glass globes they live four days. On fresh cauliflower, according to circumstances, they live one to three days.

Seventh. If placed upon printing paper and allowed to dry between the leaves of a book, they live at least seventeen hours, or

*Translated for The Medical and Surgical Reporter by Marie B. Werner, M. D.

if placed in an envelope and sealed, they live twenty-three and one-half hours. Postal cards, without covering, gives them twenty hours.

Eighth. Upon copper or silver coins as well as upon other metals, the bacilli, if allowed to dry, die in the space of from ten to thirty minutes.

Ninth. Upon dry wearing apparel, woolen or linen, their viability differs with circumstances. If dry, one to four days, if moist they live longer than twelve days; they even increase on moist linens.

Tenth. Flies can carry the poisonous material for two hours, and coming in contact with meat or milk, will infect it.

Eleventh. The dry hand will carry the viable bacillus for one hour. In general, the results obtained by the author's experiments show that the cholera bacilli have greater resistance than at first supposed. —*Berl. klin. Woch.*, 1891, No. 48.

SACRAL OPERATIONS.

Prof. Zerny, af Heidelberg, says in medicine the treatment of malignant tumors have been passed over to the surgeons for cure. The method, of Herzfeld and Hochenegg, for treating tumors of the pelvic cavity by approaching them through sacral resection, has been practiced by surgeons, but not enthusiastically supported by the gynecologists.

Zerny has practiced this method eight times for carcinoma of the neck of the uterus. One woman died of shock, the remaining seven recovered; but one of these recovered has not had a return during the space of three years.

The method of operation may be at fault, in that it may promote a return. Zerny has for this reason adopted the following method:

When more space is required he has found it better to open the right half of Douglass's pouch and separate the soft parts from the uterus, separating the vagina from the growth as the last stage of the operation.

His reason is to prevent infection of the peritoneum with carcinomatous masses. Zerny has performed the sacral, respectively para sacral, method in a number of other operations with good results; for instance, a chronic vesico vaginal fistula, in two malignant growths of the uterine body and in the case of a young girl, aged twenty, for a large deciduoma of the uterus, about the size of a child's head, which resulted immediately after abortion and had formed metastases in the vagina, and for that reason laparotomy could not be thought of. It was very easily treated with the sacral method.

Two adherent myomas, and fixed dermoid tumors were also among the number which Zerny operated on through the sacrum.

The sacrum method is the most direct in such cases in the parametrium, being within easier reach. He also found it useful in removing a tumor of the bladder and in operating twice for atresia of the anus.—(Read at the twenty-second Congress of the German Society for Surgeons, held in Berlin, April, 1893.)—*Deuts. Med. Wochen.*, 1893.

ABSTRACTS.

THE SPECIAL INFLUENCE OF ALCOHOL ON THE BODY.*

T. L. WRIGHT, M. D., Bellefontaine, Ohio.

The subject may be divided into three parts:

1. The effects of alcohol upon the nerves.

2. Upon the blood, and

3. Upon the physical integrity of essential organs and tissues.

First. The influence of alcohol upon the muscular senses is well marked—the movements of the muscles being hampered and paralized by that agent. There is incoordination of movements in the mus-

* Abstract of a Paper read before the American Medcal Association, Milwaukee.

cular system. This is seen in the imperfections of speech and locomotion, and in the incapacity to combine the actions necessary for sewing, playing upon musical instruments, etc.

The vaso-motor system of nerves is always affected by alchohol—sometimes this is observed in flushings, which indicate paralysis—and sometimes by pallor and a spastic state of the capillary system.

Alcohol may also produce neuritis—as, in the tibialis anticus nerve the musculo spiral nerve, and several others. It is plainly injurious to the phrenic, as well as the pneumogastric nerve, causing wide spread functional and structural derangements.

The anæsthetic effects of alchohol upon common sensation, and to some extent upon the several senses, influence very materially the accuracy of perception; and they mislead the mind and judgment in many ways.

Second. Alcohol may produce changes in the appearance of the red corpuscles of the blood. They are deprived of the power to perform their functions physiologically. They may become shrunken, deformed, and incapable of either distributing oxygen, or if eliminating carbonic acid in a healthful and proper manner.

Not only carbonic acid, but other effete and poisonous matters corrupt the blood when the influence of alcohol is prolonged for a considerable time. There is accumulation of carbon, and especially of the hydro-carbons. These may readily undergo slight chemical changes, resulting in the production, at one time, of acetic acid, and again of fat, attended with a disappearance of oxygen, already too scant.

The gouty, or the rheumatic diathesis may become established by contaminations of the blood dependent upon deficiency of oxygen.

The low temperature induced by alcohol, may be partly connected with alcoholic paralysis of certain brain centers; but it is also greatly dependent upon the inçapacity of the circulating fluid to hold oxygen, and to distribute it in the general system.

Third. Physical degenerations from alcohol are numerous.

The heart may be prostrated by absence of the proper physiological rests between heart beats. It may also become the seat of fatty degeneration, also of atrophy. There may be dilatation, attended always with irritable beat and palpitation. The valves, moreover, are likely to be injured.

The liver is often the seat of fatty degeneration in the inebriate. The kidneys may suffer in a similar manner. Both the liver and kidneys may be the seats of sclerotic degenerations, attended with contractions and indurations.

The connective tissue may undergo a process of hyperplasia under the influence of alcohol. This condition is likely to be associated with a variety of functional mishaps. But the contraction, which subsequently takes place in the enlarged fibrous substance, is much more injurious. The gradual contraction of the interstitial tissue, especially in the liver, the kidneys and the brain, produces consequences of the most disasterous nature; which are the more to be deplored as they are necessarily incurable.

The inebriate brain may present the appearance of the senile brain, there being atrophy and superabundance of serum.

The membranes of the brain, including the dura mater, may be abnormally adherant and thickened, while the brain itself may present "patches of apparent sclerosis, and other evidences of injury due to alcohol, which resemble the apperances seen in the brains of paretics."

Stranger.—I notice you call your friend Professor. Is he really a professor?

Boweryite.—I should say so. Why, dat feller swollers a sword 18 inches long, stands on his ear and eats glass out of a churn. Professor! Well I should smile.

Suicides of School Children in Germany.

During the last eight years, 289 school children committed suicide in Germany; of these 49 were girls. The causes assigned were: fear of punishment, 80; mental disease, 26; morbid ambition, 19; fear of examination, 16; practical joking, 7; disappointed love, 5. This record is scarcely surprising considering the severe educational requirements of the schools in the fatherland. It is a terrible indictment against "over pressure," the effects of which can scarcely be expected to be limited to those children who are driven to destroy themselves.—*Dublin Journal of Medical Science.*

CURRENT LITERATURE REVIEWED.

LANPHEAR'S KANSAS CITY MEDICAL INDEX for May, contains a paper by Dr. D. J. Hamilton, of Aberdeen, Scotland, on "Asiatic Cholera." The paper considers the source of the disease; the recent epidemic; the cholera germ; the advantage of the early recognition of the organism in a fresh outbreak; and the importance of distinguishing between this spirillum and others found in the human body. The paper concludes with a warning against the danger of a bad water supply.

Dr. Lewis Schooler contributes a clinical lecture on "Compound Fracture of the Skull with depression; Fistula in Ano, with operation under cocaine; and Syphilitic Adenitis."

Dr. J. F. Binnie presents the report of a

Peculiar Course taken by a Pistol Bullet through the Abdomen.

The patient had first received a wound oevr the left eyebrow, the bullet smashing the outer table of the skull and emerging at a poin t about one inch from the wound of entrance. The range was so short that the face was tottooed with powder. Nothing of interest was noted in regard to this wound.

A second wound was found on the right side of the chest in front, and the course taken by the bullet, which inflicted this wound, is of peculiar interest.

The bullet first went through two woolen shirts carrying with it a small portion of each, and entered the body at a point on a level with the ninth rib, midway between the right mammary and the anterior axillary lines. At a point almost exactly opposite the wound of entrance, situated on the back about 2½ inches to the right of the spine the bullet could be felt under the skin. The patient was somewhat collapsed but not markedly so.

Under the usual antiseptic precautions the wound of entrance was enlarged and it was found that the 9th rib had been perforated by the ball. This portion of rib was now excised with the rongeurs and the pieces of shirting carried in by the missile removed. The pleura was seen to be uninjured but the diaphragm was perforated and omentum made its appearance in the wound. No wound of the liver was apparent. In order to follow the further course of the bullet and to see whether the intestine was perforated or not, an incision through the abdominal parietes was made external to the right linea semilunaris and the intestines were, on examination, found uninjured. A quantity of clotted blood in the abdomen was removed.

Next an incision was made over the bullet (38 caliber Smith & Wesson) and it was readily extracted. The track of the bullet could be followed, from this last incision, with the finger, for 3½ inches, but nothing of importance was revealed. The laparotomy wound was closed with buried and superficial continuous catgut sutures. The wounds in the diaphragm and in the chest wall were closed in the same manner. The posterior wound was closed with interrupted silk sutures and drained with iodoform gauze. Dressings applied were of iodoform and bichloride gauze, with absorbent cotton externally.

On the evening of the same day, bloody urine was voided showing that there must have been some bruising of the right kidney. The patient recovered.

Dr. H. C. Crowell contributes the

Report of Cases of Myoma Uteri.

His method of operating is illustrated by the following report of a case:

"Adhesions freed, the broad ligaments were tied off on either side with floss silk; the uterine arteries tied, bladder separated and uterus drawn well up and forward, I passed down posteriorly to the uterus to the utero-vaginal junction where I thrust a sharp-pointed scissors through into the vagina and spread them enough to admit my fore-finger. I then cut either way around the cervix with curved scissors, freeing the vaginal attachment to the uterus. The pelvis was then thoroughly irrigated and the ligatures, left long, were passed down into the vagina with iodoform gauze packed lightly in the pelvis as drainage. The abdomen was then closed and patient put to bed and maintained upon an incline planed to favor drainage. The gauze was removed on the third day. After the gauze was removed it was noticed that urine also escaped from vagina, indicating that somewhere injury had been done to the urinary apparatus, which fact simply indicates that greater care should have been observed, and does not in any way militate against the operation. The steps of the operation after adhesions were disposed of were easy and rapid. The convalescence exceptionally free from any complications. Patient walking about in fifteen days. By quiet, urine ceased to flow from the vagina, fifty-six ounces being secured from the bladder in twenty-four hours.

The method employed is that devised by Dr. Florian Krug. The author thinks this operation approaches the ideal method. He thinks catgut should be substituted for silk in ligating the broad ligaments, and the inverted peritoneal surfaces should be stitched together to completely shut off the peritoneal cavity and render less liable a possibility which is by the method employed practically evil, viz: intestinal adhesions. He feels that total extirpation has not a few superior points of advantage over any other method.

Dr. William J. Taylor presents the "Report of a Case of Fracture of the Thyroid Cartilage" which has already appeared in the MEDICAL AND SURGICAL REPORTER for May 6th, 1893, page 694, in the Transactions of the Philadelphia Academy of Surgery.

Dr. Emory Lanphear contributes the report of "Four Cases of Bloodless Amputation at the Hip," illustrating the article with wood cuts showing the various steps in the operation.

Dr. John Punton reports "A Case of Hysterical Aphonia in the Male."

PRACTICE FOR MAY

contains an article by Dr. Wallace A. Briggs on

Uterine Tinkering; What it is and what it is not.

He says: Uterine tinkering and its synonym, meddlesome gynecology, include every form of uterine treatment that does not seek to accomplish a rational end by rational means. Easily foremost among the forms of uterine treatment which are neither rational nor scientific, is the routine use of the applicator. In conditions in which this instrument is ordinarily employed, the endometrium practically constitutes the walls of an abscess cavity. A muco-purulent secretion constantly pours into this cavity and escapes through the cervical canal. In passing the cervix the medicament is mostly expressed from the cotton, which passes on into the uterus, gathers a little mucus or muco-pus, abrades the mucous membrane at several points, and is withdrawn. Such applications are harmful even when seemingly most beneficial, for their curative influence is wholly restricted to the canal of the cervix which, as it improves, contracts and hinders drainage—the most important element in the treatment of uterine catarrh. Another form of uterine tinkering, less prevalent but equally reprehensible, is the introduction into the uterine cavity of sticks of lunar caustic. The best that can be reasonably expected of it is uterine colic and inflammation. Medicated bougies and medicated injections, unless for the purpose of cataphoresis, swell the formidable list.

Sponge, laminaria and tupelo tents are all quite as capable of doing harm as good, and should be used with the utmost discrimination. The form, size and position of the uterus can usually be determined without the use of the sound. Its use is ordinarily meddlesome, and without the strictest antiseptic precautions is always so. Hysterectomy for fibroids, before the thorough and conscientious trial of electricity, is more than uterine tinkering, more than meddlesome gynecology—it is unwarantable imperiling of human life. Total hysterectomy in the late stages of uterine cancer is likewise meddlesome. Exploratory incision is often meddlesome and often a mere lion's skin to cloak carelessness or incompetence in diagnosis. In regard to what uterine tinkering is not, he says: It is not antiseptic irrigation of the vagina in its appropriate conditions. It is not the promotion of uterine drainage. It is not the restoration and maintenance of the normal axis and position of the uterus. It is not hydroscopic and antiseptic depletion by means of glycerine, borax or boracic acid. It is not curettage. The author also includes in the procedures which he thinks are not uterine tinkering, the Apostoli method of dealing with fibroids and the application of electricity generally in the treatment of pelvic neuroses. The so-called conservative treatment of diseased tubes and ovaries is also not uterine tinkering.

Dr. Herbert Terry discusses the subject of

Puerperal Eclampsia.

In the treatment of puerperal convulsions prevention is better than cure, and the premonitory symptoms are of vast importance. They differ very little from those found in uræmia from Bright's disease—headache, and other disturbances of the nervous system, *e. g.*, wakefulness, stupor, restlessness, delirium, and muscular twitchings; disturbances of vision, *e. g.*, sparks or dark spots before the eyes, dimness of vision, or even blindness; vomiting or diarrhœa; œdema, which is of especial significance if occurring in the hands or face; albuminuria and renal insufficiency. The earliest and most frequent danger signal he believes to be the renal insufficiency, and this is even more than a symptom; it is a determining cause. During pregnancy the patient or her friends should report any unusual condition, and especially any of the symptoms enumerated above, and the physician should consider it a duty after the fifth month of pregnancy to make frequent examinations of the urine, especially in regard to quantity and specific gravity. The skin should be kept in good condition by frequent baths and rubbing. The bowels should be kept open if necessary with saline cathartics. Flannels should be worn next the skin, and any danger of "catching cold" from drafts, wet feet, or chilling the surface of the body, should be carefully avoided. The food should be in good quantity, varied, and easily digested, and the digestion kept in as good condition as possible.

If any of the premonitory symptoms of convulsions enumerated above should occur, there is still more reason for looking after the skin, bowels, and kidneys.

If the symptoms are marked we may have recourse to hot baths, diuretics, *e. g.*, digitalis, nitrate of potash, colchium or Basham's mixture. Perhaps the most common diuretic is cream of tartar, which also acts very satisfactorily on the bowels. The diet is of great importance, and theoretically meat should enter into it but sparingly. The blood should be washed out with water, Vichy water, lithia water, and the like. If the symptoms do not subside the question of premature labor comes up. The author believes in inducing labor if the child is viable. If the child is not viable, more delay is not only admissible but imperative. If premature labor is decided upon, the patient is best prepared by the administration of a brisk hydrogogue cathartic. The author prefers croton oil or elaterium in full doses. This may be followed, if needed, by sufficient chloral hydrate and bromide of potash to quiet the nervous system. If convulsions actually occur, there is no question of the advisibility of emptying the uterus at once. The use of veratrum viride, in subcutaneous doses of ten to twenty minims of the tincture every half hour till the pulse is reduced to 60, is suggested in place of bleeding. Pilocarpine has given good results in the author's hands.

Cathartics, especially croton oil and elaterium, have proved of great value as eliminants. Neither acts so quickly as to prohibit the use of chloral by the rectum, or pilocarpine subcutaneously.

To quiet the nervous system morphia has been used in large doses and has proved itself of value notwithstanding its alleged danger in uræmia.

Chloral, with or without bromide of potash, has been almost universally advised. At least a drachm of chloral should be given by enema as soon as possible, or, if the patient can swallow, forty grains by the mouth. Its effect can be noticed within half an hour.

Chloroform or ether may be given to control the convulsions, but they are not to be compared with the chloral in definiteness of dose or prolonged effect.

As adjuvants to the treatment, dry cups or digitalis poultices over the region of the kidneys seem to be of use. If there were too much depression, perhaps from the use of pilocarpine or veratrum viride, the subcutaneous use of strychnia or citrate of caffeine (itself a powerful diuretic), may be of advantage.

This issue concludes with a paper by Dr. Leon Brinkmann on "The Aseptic Preparation of some of the Materials employed in Surgery."

PERISCOPE.

MEDICINE.

Cocaine Antidotes.

S. Mitchell has found that while ammonia, digitalis and brandy will relieve the milder toxic manifestations of cocaine poisoning, they signally fail when these systoms are superceded by severe præcordial pain, weak and rapid pulse, sighing respiration, borborygmus and belching of wind, muscular rigidity, and later paralysis of the whole body, except the brain, which is unaturally active. In such a case he used a large teacupful of clear coffee, and has found it equally efficacious on subsequent occasions. It can be administered cold or hot. He makes no mention of amyl-nitrite.

Gluck advocates dissolving the cocaine in a three per cent. solution of phenol. This, he claims, prevents the toxic effects of the former drug and renders the solution stable; as it is well known, such solutions otherwise lose their anæsthetic effects after twenty-four hours. Phenol, besides has a certain anæsthetic power of its own, forms a superficial eschair, which prevents absorption of the cocaine, destroys bacteria, fungi, etc., prevents decomposition in the solution, renders it aseptic, and wards off reactive congestion.

—*Med. Record.*

The cry of children, according to Dr. E. C. Hill, in pneumonia and capillary bronchitis is moderate and peevish and muffled, as if the door were shut between child and hearer. The cry of croup is hoarse, brassy and metallic, with a crowing inspiration. That of cerebral disease, particularly hydrocephalus, is short, sharp, shrill, and solitary. Marasmus and tubercular peritonitis are manifested by moaning and wailing. Obstinate, passionate, and long-continued crying tells of earache, thirst, hunger, original meanness, or the pricking of a pin. The pleuritic is louder and shriller than the pneumonic, and is evoked by moving the child or on coughing. The cry of intestinal ailments is often accompanied by wriggling and writhing before defecation. Exhaustion is manifested with a whine. Crying only, or just after coughing, indicates pain caused by the act. The return or inspiratory part of the cry grows weaker toward the fatal end of all diseases, and the absence of crying during disease is often of graver import than its presence, showing complete exhaustion and loss of power. Loud screaming sometimes tells of renal gravel.—*Denver Medical Times.*

SURGERY.

After-Effects of Chloroform.

Dr. Luther (*Munch. med. Woch.*) says that changes are found in the kidneys after death by chloroform, however produced. He says that almost after every administration, especially if prolonged, albumen and casts appear in the urine. The author has found that (1) the urine was normal when no after-effects, such as vomiting, etc., were present; (2) of many cases examined, the after-effects were most marked in the single case in which abnormal constituents were found in the urine; (3) albuminuria and cylinduria go hand in hand, and disappear after a few days, and (4) the casts are mostly hyaline. He concludes for these reasons that (1) the use of chloroform should be limited to cases where it is necessary; (2) in every case before prolonged narcosis the urine should be examined, renal disease being a more important contra-indication than heart disease (except fatty heart); (3) chloroform narcosis should be restricted in the case of the pregnant and lying-in, and it should be absolutely avoided in eclampsia, since it must be prolonged, and the kidneys are nearly always diseased; and (4) mild diuretics are of value in the after-effects of chloroform.

Chloroform as a Hæmostatic.

As a general hæmostatic for the controlling of external bleedings, arterial, venous, or capillary, chloroform is most valuable. Applied on a dossil of lint or cotton wool to the bleeding surface, it promptly stays the blood, acts as a direct stimulant to the patient, and leaves no blood crust to fall off and recommence the bleeding. It is peculiarly suitable for all abdominal operations, as it has no tendency to excite inflammation either in the part to which it is applied or to any of the surrounding tissues.

As an antiseptic application it is more powerful than bichloride of mercury solution. The addition of gum resins has been suggested, but they would detract from the value of the application instead of increasing it, for the reasons which will occur to any person familiar with the use of solutions of gum resins.—*Med. Press and Circul.*

On the Use of Thiersch's Skin-Grafts as a Substitute for Conjunctiva.

Dr. F. C. Hotz, of Chicago has had very satisfactory results in grafting according to the method proposed by Thiersch. (It must be remembered that the grafts consist only of "the epidermis and the tips of the papillæ.") The advantages claimed in favor of grafts of this kind over those of mucous membrane are, their greater vitality, greater simplicity of process, and the higher percentage of success.

Dr. Hotz reports four cases in this article in which he employed this method. The operation was performed for the following conditions:

1. For the relief of extensive adhesion of the lower lid to the eyeball (symblepharon) following the destruction of the palpebral and ocular conjunctiva by lime or hot metal.
2. For the relief of the excessive shrinkage of the conjunctiva in trachomatous eyes.
3. Thiersch's grafts can be used for enlarging a contracted conjunctival pocket, to make the insertion of an artificial eye possible.
4. Thiersch's grafts may be used in certain cases of pterygium.—*Ann. Ophth. and Otology.*

NEWS AND MISCELLANY.

Dr. G. Betton Massey will open a summer annex to his sanitorium at Paoli, Pa., June 1st, to remain open during the hot months.

ARMY AND NAVY.

U. S. ARMY FROM MAY 28., 1893, TO JUNE 3, 1893.

The leave of absence on surgeons ceritficate of disability granted Major James P. Kimball, Surgeon U. S. Army, is extended two months on surgeons certificate of disability.

Captain Jefferson D. Poindexter, Assistant Surgeon is relieved from duty at Fort Nebraska, and will report in person to the commanding officer, Fort Bowie, Arizona, for duty at that post.

Major John Brooke, Surgeon, is relieved from duty at Fort Leavenworth, Kansas, and will repair to Philadelphia, Pennsylvania, and enter upon temporary duty as Attending Surgeon and Examiner of Recruits in that city.

Leave of absence for one month is granted Lieut. Colonel William D. Wolverton, Deputy Surgeon General U. S. Army.

Leave of absence for fifteen days, to take effect upon his relief from duty at Fort Bowie, A. T., is granted Captain Richard W. Johnson, Assistant Surgeon.

1st Lieutenant William F. Lewis, Assistant Surgeon, (recently appointed) will proceed from Kinston, North Carolina, and report in person to the commanding officer, Fort Assinniboine, Montana, for duty at that station.

Leave of absence for four months, on surgeon's certificate of disability, is granted Captain Curtis E. Price, Assistant Surgeon.

Captain William C. Shannon, Assistant Surgeon, now in this city, is relieved from further duty at Fort Apache, Arizona Terry., and will report in person to the Surgeon General for duty in his office, vice Captain Harry O. Perley, Assistant Surgeon, who at his own request, is relieved from duty in that office, and will report in person to the commanding officer, Plattsburgh Barracks, New York, for duty at that station.

By direction of the President, Captain William C. Shannon, Assistant Surgeon, is relieved from further duty under the Intercontinental Railway Commission, appointed under the provisions of the act of Congress approved July 14, 1890.

The World's Fair.

FINAL ARRANGEMENTS FOR THE SALE OF TICKETS VIA THE B. & O. R. R.

For the benefit of those desiring to attend the World's Fair the Baltimore & Ohio Railroad will sell Excursion tickets to Chicago and return, at all stations on its line, at low rates. Tickets will be on sale until November 1st, and will be valid for return journey until November 15th, 1893. They provide for a reduction of 20 per cent. below regular rates. These ticket will be valid only for continuous journey. Tickets at higher rates will be sold that will permit holders to stop over at Baltimore, Washington, or any other point, going and returning.

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ORIGINAL ARTICLES.

THOMAS J. MAYS, M.D., Philadelphia.
Rest vs. Exercise in the Treatment of Pulmonary Consumption. 915

COMMUNICATIONS.

JOHN ASHHURST, JR., M.D.
Individual Experience in the Treatment of Vesical Calculus. 920

H. R. WHARTON, M.D.
A Case of Diphtheritic Croup in which a Tracheotomy-Tube was Worn for Sixty Days. 923

DR. JOHN B. CRANDALL, Sterling, Illinois.
Suture of Tendons. 925

A. O. STIMPSON, M.D., Thompson, Pa.
Life Insurance and its Relations to U. S. Pensioners. 926

W. H. LINK, Petersburgh, Ind.
Clinical Observations in New York. 927

WM. CHEATHAM, M.D., Louisville, Ky.
Leptothrix Mycosis of the Tonsil, Pharynx and Base of Tongue, with Report of Three Cases. . . . 928

SOCIETY REPORTS.

American Medical Association. 930
American Surgical Association. 938

EDITORIAL

The Itching Palm. 943

BACTERIOLOGICAL NOTES. 945

TRANSLATIONS 946

THE LIBRARY TABLE. 949

CURRENT LITERATURE REVIEWED 950

PERISCOPE

SURGERY 952
NEWS AND MISCELLANY 952
ARMY AND NAVY 952

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THE MEDICAL AND SURGICAL REPORTER.

No. 1894. PHILADELPHIA, JUNE 17, 1893. Vol. LXVIII—No. 24

ORIGINAL ARTICLES.

REST *VS* EXERCISE IN THE TREATMENT OF PULMONARY CONSUMPTION.

THOMAS J. MAYS, M D.,* Philadelphia.

It is not too much to say that he who takes a sober view of the nature of consumption knows very well that it is not a question of lung disease so much as it is one of constitutional depravity. The wasting, the general weakness, the easy fatigue, the occasional painful tiredness of the whole body on slight exertion, the shortness of breath which is out of all proportion to the area of lung which is involved; the slight rise of the evening temperature, the loss of appetite, and the chilly and creepy sensations along the back and over the whole body, all point out plainly that the whole constitution is at fault from the very beginning of the disease. Consumption is, therefore, a wasting trouble, not only of the lungs but of the whole body. The consumptive may possess a considerable amount of strength, but this has no staying qualities. It is easily dissipated and the whole course of the disease indicates the existence of a serious error in that portion of the body which has to do with the accumulation and distribution of energy. This fault, I believe, resides principally in the nervous system. I regard the sufferer of this disease in the same light as I do the individual who is approaching the border of financial bankruptcy. With the former it is a question of spending too much physiological capital, while, with the financier it is a question of spending too much moneyed capital. If these conditions are alike, as I believe them to be, what is to be done? What is the remedy? Can the financier expect any possible relief if he continues his course of extravagance? No. He must, in order to save himself from going to the wall, do either one of two things. He must either increase his income, or restrict his expenses. If he does both he will redeem himself in a shorter time. The same principal of treatment applies to the consumptive. In order to get well he must improve his physiological capital. By this is meant that he must recover the flesh and strength which he has lost. He can accomplish this either by increasing his income, or by diminishing his expenditures. If he does both of these things he will attain his object soonest.

Now in what do his income and expenditures consist? His income consists in the food and air which he consumes in building up his body and in keeping it at par; and the latter consist in the quantity of the force which he consumes in maintaining the machinery of his body in motion. It is evident, therefore, that the amount of his expenses will depend on how much machinery is kept in motion. Now what comprises the machinery of the body? Principally innervation, respiration, circulation, digestion, and voluntary muscular motion. From this it is clear that a certain part of the machinery, like innervation, breathing, circulation, and

* Professor of Diseases of the Chest in the Philadelphia Polyclinic, and Visiting Physician to the Rush Hospital for Comsumption.

digestion are essential to the existence of life, while voluntary movements of the body are not. The integrity of the former, must therefore, be kept up, while the latter may be cut off. The stopping of this is indeed a great saving of bodily energy, because a vast amount—probably one-fifth of it—is given off by muscular labor expended in walking, etc.

The treatment of this danger of physiological bankruptcy in the consumptives is obvious enough. The prudent financier, who is in danger of insolvency, by pruning off all unecessary expenses, and by increasing his capital stock by degrees, will grow and develop in financial strength, and will sooner or later be in a condition to compete again with his more fortunate neighbors. The same line of action must be followed in managing the consumptive. We must check his expenses and increase his capital. This is done (1) by placing him at rest, and (2) by increasing the amount of his food. As the province of this paper is to dwell on the influence of rest in the treatment of phthisis, very little will be said of the important part which food plays in the same relation.

Text-books on the practice of medicine as a rule are silent on the value of rest in the treatment of phthisis, and those who refer to the subject condemn it by advocating the great usefulness of physical exercise. So far as I know Dr. Brehmer, of Göibersdorf, was the first to introduce the method in this disease, although his chief idea in carrying it out at first was to shield the weakened heart from overwork. More recently, however, it is evident from his writings that he employed it for the purpose of encouraging the bodily strength. Dr. Wier Mitchell in his little book on *Fat and Blood* recommends the rest cure in some cases of phthisis. He says (p. 93) "I have ventured, without much hope, to treat three cases of phthisis in the same manner. There are cases of this nature in which exercise wearies . . . . and I believe that sometimes, and especially in the very earliest stages of consumption, my treatment will save a percentage of such people." He refers to three cases which he treated in this way. One got well and remained well. One after improving in all respects relapsed on account of repeated bleeding from piles and rectal fissure, and another one improved sufficiently to resume his work. In a paper "*On the Treatment of certain Forms of Phthisis Pulmonalis by Rest and the Internal administration of atropine,* by Dr. Roberts Bartholow, published in *The American Journal of the Medical Sciences* of April, 1877, (p. 436) the author speaks very highly of the value of rest. He says: "active exercise is hurtful in phthisis when there is present any considerable fever. Quiet of mind and repose of body, as far as they can be secured, are essential to the curative treatment of this disease. "He cites two cases and refers to others which he treated successfully according to this method in connection with the administration of atropine. Dr. A. Vollaud, of Davos, who has had a large amount of experience in the treatment of consumption in that famous resort, states in his brochure on *The Treatment of Pulmonary Consumption in High Altitudes* (p. 18) that rest is the first obligation of the patient, and if possible this should be taken in the open air. Dr. Dettweiler, who is proprietor of the institution for consumptives at Falkenstein, in Germany, uses the following language on this subject in his work on the *Treatment of Pulmonary Consumption* (p. 85). "More important than all drug treatment is absolute rest of the feverish patient in the fresh open air." The January number of the *Climatologist* for 1892 contains the report of an interesting discussion, by various members of El Paso(Colorado) County Medical Society, on a paper read by Dr. J. M. Keating, the subject of which being "The Rest Cure in the Treatment of Incipient Phthisis." There was a unanimous expression of opinion in favor of rest as a curative agent in this disease, and among the many judicious remarks that were made were the following by Dr. Tucker, which on account of their appliability to the subject under consideration, I will take the liberty of quoting: He says "I might say that my attention was directed to this subject about 18 years ago in a manner very mortifying to myself. A gentleman with incipient phthisis placed himself under my care and was advised the then orthodox treatment, sunshine, fresh-air, exercise, etc. Failing to improve after a short time he consulted an irregular practitioner, who at once put him to bed and kept him there, the sole medication as I afterwards learned, consisting in the use of veratrum viride to control the pulse.

As the result of the change of treatment there was soon great improvement, and so far as I know the patient is alive to-day. This was the first time my attention was called to the value of rest in the disease under consideration, but I have frequently since had opportunities of estimating its true worth, particularly in Colorado."

So far as my personal experience is concerned with the rest treatment in phthisis I may say that I have been led to adopt it during the last seven years on account of the unsatisfactory results which I obtained from other modes of treatment. In reviewing my experience before that time I believe that much of the success which I think I had in treating this disease was, at least, partly attributed to the rest which was necessarily though unconsciously enjoined on my patients. Whatever the prevailing line of treatment may have been there was always, at least in the begining, a certain amount of rest with it in the form of lying in bed, or sitting in the house. This was especially the case in the fall, winter, and early spring, when out-door life is naturally discouraged by the inclemency of the weather; but still the ruling idea was to get the patient strong enough to exercise in the fresh, open air, and hence there existed a constant anxiety to get out, and every fine day was eagerly utilized for this purpose. I often perceived that patients who, after being kept quiet for some days and who were believed to be abundantly able to take the supposed needed out-door exercise, almost invariably relapsed when they undertook to do this, and after a number of disappointments of this sort, I came to the conclusion that my error consisted in not systematically controlling the physical movements of my patients when I allowed them to resume activity. It is strange how often we fail to recognize the true cause for our success and failure. More than fifteen years ago one of the most practical physicians of my acquaintance, in accounting for his good results in the treatment of phthisis, which I knew he obtained, said to me, "if I can succeed in making my patients sit in the house for a certain length of time and watch the thermometer so as to maintain a uniform range of temperature day and night, I generally succeed in restoring them to health." The essential idea of his treatment was to envelop the patient in an even temperature, but he failed to recognize, as I did too, that it was not so much this as it was the bodily rest which accompanied the procedure. I am quite sure from my own more recent observation that if he had compelled his patients to do an active physical exercise at the same time his results would have been less fortunate.

The idea of exercising the consumptive for strength is a fallacy of the worst type. It is based on the assumption that because, in health, exercise gives strength, therefore the invalid must derive the same benefit. Nothing can be further from the truth, and to illustrate this I can do no better than to draw another example from the field of failure. It goes without saying that money makes money. The banker puts his money on interest, or in other words, he exercises his capital and by so doing he increases his financial strength; but the poor man has no money to put on interest, and he struggles along from year to year for the purpose of making a decent living. This parallel holds good between the man in health and the consumptive. The former has a sufficient amount of reserve physiological capital which he can expend in physical exercise, and we all know that physiological activity not only brings strength, but builds muscular tissue,—hence by doing this he enhances his normal resources; but the latter has no reserve capital whatever, and so, as has already been said, on the brink of physiological dissolution. In his exhausted state he lives from hand to mouth, for he consumes all the force which he obtains from his food in carrying on the functions which are necessary to a bare existence. Exercise in his case is therefore meaningless in a physiological sense, and can leave no other than a disastrous effect on his already drained and devitalized constitution.

In the practical application of rest in phthisis much of our success will depend on whether we adopt it properly to the needs of each individual. No iron clad law can be laid down in this matter. Whether it is best to place a patient on absolute rest, or whether to allow him to exercise under proper restrictions, are questions which must be decided by his condition. The cardinal principle to be followed in choosing between the two plans is as to whether the former or the

latter, or a mixture of the two, will place him in the best possible position in which he may regain his lost flesh and strength, and have his bodily expenditures reduced to the lowest point consistent with life. His physical state and power of resistance will help us much in determining this problem. If the disease in the lungs is trivial, if there is only slight constitutional disturbance, moderate fever, and not too great a tendency to become tired on exertion, there is present a greater power of resistance to disease than if there is a great deal of lung mischief, or much constitutional depravity, combined with a persistent sense of exhaustion. A patient in the latter condition must be placed in complete repose on his back; while it is probable that one in the former condition may be treated successfully with a less rigid observance of the rest treatment. It is a safe rule, however, to place all such patients in bed at the very outset, and allow them to sit up or walk about as soon as they are able. Their ability to do these things can only be found by testing it. One of the best indices in governing our action here is the state of the temperature. If this is persistently above 100° in the evening, or rises on slight provacation, they are not fit to undertake those ordeals. It is astonishing often how readily the temperature is disturbed in such patients. I have observed on a number of occasions that if they take a brisk walk, run up stairs, or swing dumb bells for five minutes, the temperature will rise from a degree to a degree and a half in the course of a short time, even though it had been at or near the nominal point before.

I am often asked if phthisiscal patients take kindly to the rest treatment, for it is generally believed that a practice which is so much at variance with the prevailing custom of managing this disease surely meets with opposition. In answer to this I must say that it is very exceptional to find a patient who is not willing to submit to it after he fully realizes his true situation, and comprehends the rational basis of the proposed procedure. The almost invariable improvement which follows the immediate application of the remedy stimulates the hope that still greater amelioration will come and more than compensates for the monotony to which it sometimes gives rise. Indeed, instead of he treatment being tedious I find that my patients are usually contented and happy. Care is necessary that social intercourse is not curtailed too much, that they are given enough of innocent amusement. They read, converse, play chess, dominoes, cards and checkers, are allowed to see their friends, if there are not too many, and are permitted to enjoy themselves, so far as enjoyment can be carried on in bed. If their lungs are extensively involved, and especially if any tendency to hæmoptysis exists, they are cautioned against the strain of hearty laughter. Music has a quieting and restorative effect on this class of patients, and they should be frequently given the opportunity of listening to entertainments of this character.

In addition to the rest treatment, my patients also receive food of the most nourishing kind, such as freshly-expressed beef juice, beef powder, beef steak, milk, eggs, oysters, etc., as well as drug medication and hygienic management, but as these subjects are not embraced in the title of this paper I will dismiss them with this brief reference.

In conclusion I will, instead of going into details, give a brief summary of what rest, in connection with the other treatments referred to, has done for those of my phthisical patients who have made the most marked improvement during the last eighteen months.

Mr. T., aged 16, gained fifteen pounds in two months, and his family physician, who brought him home, says he is cured. He was in the incipient stage, and is free from a family history of the disease, and was kept in bed three weeks.

Mr. O., aged 30, gained sixteen pounds and three-fourths in four months, and the disease is arrested. He is at work. No family history. Kept quiet for about two months.

Mr. K., aged 34, gained twenty-two pounds in five months and has been working for a year, and every vestage of this disease has disappeared. He was kept at rest for a month and a-half. Lost two sisters from consumption.

Mr. N., aged 22, gained eleven pounds in six months. His disease is arrested, and he has been working during the last four months. Rested in bed four weeks. No family history.

Mr. S., aged 18, gained sixteen pounds and three-quarters in six months, and the

disease is believed to be permanently arrested. Remained quiet three months. His mother died of consumption.

Mr. P., aged 35, gained fifteen pounds in seven months, and has been working during the last five of these. He is practically cured. Rested two months. Lost a brother from consumption.

Mr. S., aged 28, gained twenty-nine and three-quarter pounds in four months. His disease is arrested and he has been working since the beginning of last January. In bed six weeks. No family history.

Miss M., aged 24, gained twenty-one pounds in five and a-half months, and is practically cured. In bed six weeks. No family history of the disease.

The last seven cases were in the advanced stage of the disease, *i. e.*, there was pronounced pulmonary infiltration in all but the last one, and all of them were greatly emaciated.

Mrs. E., aged 34, gained twenty-seven and a-half pounds in one year. She had a bad family history. Her disease is arrested and she is able to attend to her household duties. She was kept very quiet for six months.

Mrs. E., aged 30, gained twenty-two pounds in six months, and had been able to attend to light work around the house. Her disease, nine months after I saw her, was arrested, and her husband took her to Colorado against her wishes in order to restore her entirely. The mountain climate failed to agree with her and in a few months she lost more there than she had gained, and a few months ago she returned to her home, and probably to die. She spent three months in bed and on a lounge.

Mr. L., aged 22, gained twelve pounds in about six months. Beside the pulmonary disorder he suffered persistently for nearly three months from diarrhœa—having as many as four and five stools a day during that time. This has ceased entirely, and the pulmonary disease is arrested. He was kept on his back for three months. No family history of the disease.

Mr. B., aged 27, gained nineteen and a-half pounds in one year. He was in bed for ten weeks. His disease is arrested. No family history of the disease. The four last cases were all in the far advanced stage of phthisis, all except the second last having cavities in their lungs.

The results in these twelve cases give us a fair idea of what rest combined with other appropriate treatment can do in phthisis. In the aggregate these patients gained 228 pounds, or an average gain of nineteen pounds for each patient. I am of the opinion that the strongest recommendation in favor of any line of treatment for the phthisical is its power of increasing the weight, although it must not be condemned because it fails to bring this about in every instance. Indeed, I have had cases who did no more than hold their own in weight under this treatment and yet went on to recovery. A marked case of this kind was Mrs. T., aged 25, who was taken sick fifteen months ago with phthisis. She was kept in bed for a little more than two months, during which time a cavity formed in her right lung. At first she lost a few pounds but subsequently made it up again, and at present she weighs about as much as she did when she was first taken sick. Her disease is completely arrested and she has been able to attend to her household duties for the last seven months. On the whole my experience teaches me that men are more apt to gain than women.

Finally, in thus advocating the great value of rest in the treatment of pulmonary consumption, I do not mean to say that exercise is to be universally condemned, but I do wish to lay stress on the fact that we are too prone to apply it too early, and therefore improperly, and that it is a measure which is more applicable to the management of the convalescent than to the active stage of the disease.

No wonder Time is represented as haggard and worn out; a watch keeps time, the chorister beats time, the clock strikes time, trains run on time—not all, but some of 'em—the foreman lays out time, horses run against time, people threaten to do things if they get time, at a prize fight they call time, soldiers mark time, criminals serve time, few can spare time, everybody now and then tries to kill time and perhaps your subscription is behind time.

As Mrs. Partington was gazing upon St. Paul's Cathedral in London, she remarked rapturously: "O, venereal pile! Gigantic stricture!" — *N. Y. Sunday Mercury.*

COMMUNICATIONS.

INDIVIDUAL EXPERIENCE IN THE TREATMENT OF VESICAL CALCULUS.*

JOHN ASHHURST, Jr., M. D.

I find in looking over my records that I have removed calculi from the human body in fifty-one cases. One case was that of a female child, on whom I performed lithectasy, or rapid dilatation of the urethra, but the remaining fifty were in male subjects. In thirty-five of these fifty cases the patients were operated on by lateral lithotomy, which is the cutting operation that I prefer. I recognize that there are cases in which the median operation is to be preferred, and that there are other cases in which the supra-pubic operation is the best; but where the surgeon has the choice of operation, I think that he should select lateral lithotomy. Of the thirty-five cases operated on by the lateral method, twenty were in children under the age of puberty, and in every case the patient recovered. In males beyond the age of puberty, including a fair proportion of quite old persons, I have had fifteen cases with three deaths, but only one of these three was really the result of the operation. That occured in a case operated on in a neighboring town this winter. Secondary hemorrhage occurred on the ninth or tenth day, and the attempts made by the attending physician to control it were not successful.

I have six cases of the median operation, with one death, to report. In one case the operation was done for the removal of a foreign body, the end of catheter. In this case I succeeded not only in removing the foreign body, on which there was a small calcareous deposit, but also in relieving the chronic retention of urine, from which the patient had long suffered, by tearing off the median lobe of the prostate with the forceps. This was fully ten years ago; the patient is still living, and I believe has not had occasion to use a catheter since. The case which proved fatal was in a patient in the last stages of cystitis and chronic renal disease, and in which the presence of the stone was simply a complication. An interesting feature in this case was that, in addition to the presence of a stone, there was a large quantity of that semi-organized material which has been described by Vandyke Carter as the animal basis of calculi.

I have one case of the supra-pubic operation, in which the stone was a small one, this particular operation being chosen because the case was really one of villous tumor of the bladder, and the presence of the stone was simply a complication. The patient was in a critical condition from hemorrhage at the time of the operation, but made a good recovery.

I have no case of the old-fashioned lithotrity. The operation had already come to be rarely practised before I had occasion to resort to the crushing method. The early portion of my practice was largely with children, and Bigelow's modification had already become the operation of preference when I first felt I had a case adapted to its performance. I have performed this operation eight times, with six satisfactory recoveries and two deaths. Both the deaths were from uræmia, dependent upon chronic disease of the kidney.

I have brought here a number of the calculi which I have removed. The largest weighs three ounces and some drachms. It was removed by the ordinary lateral operation. It was not necessary to enlarge the wound by dividing the right side of the prostate, nor was it necessary to crush the stone. By making a large external wound, by grasping the stone with sufficiently powerful forceps, and by patience in manipulation, this stone was removed without difficulty, and the patient made an excellent convalescence.

The largest number of stones which I have removed from one patient is fifty-four. These were removed by lateral lithotomy. The patient made a good recovery, but returned in a year or so with recurrence of the symptoms from a descent of more stones from the kidney. On that occasion I determined to perform

* Read before Philadelphia Academy of Surgery, Meeting May 1, 1893.

the operation of litholapaxy. The patient did pretty well for a few days, but then the urine became turbid, containing a large quantity of ropy mucus and pus, uræmia developed, and the patient died in convulsions. This was a forcible illustration of the risk attending litholapaxy in cases of cystitis, and since the occurrence of that case I make it a rule, where the patient presents cystitis in an advanced degree, to recommend the cutting rather than the crushing operation.

With regard to the results that I have reached from my own experience, I would say, in the first place, that I have never seen any reason to wish for a better operation than lateral lithototomy in children. Litholapaxy has been resorted to successfully a number of times, and with the improved instruments which we now have the operation is a feasible one, while it could hardly be considered such a few years ago. Until within a short time it has not been possible to get instruments of sufficient strength and delicacy for use in the urethræ and bladders of children. Even now, the operation of litholapaxy in children seems to me to be a more severe one than lithotomy. The results of cutting for stone in children are so satisfactory that I think we want nothing better. The great advantage of litholapaxy, it seems to me, is the short time required for after-treatment. If all goes well, litholapaxy will allow the patient to go about his business in five or six days. This is a great advantage in adults who are engaged in active business; but in young children it is a matter of no importance. At the same time I am willing to admit that the operation has been improved to such an extent that it is one which may be legitimately resorted to in children if the surgeon thinks that it is preferable.

The median operation seems to me to have a very limited field. Cases of foreign body in the bladder, and cases of very small stone, are those to which this operation is adapted. In some of my cases the operation was not begun with the knowledge that a stone was present, but for retention of urine where it was not possible to pass an instrument by the urethra. The argument which has been advanced in favor of this operation, that it is attended with less risk of hemorrhage, does not seem to be entirely well founded. There is very little more risk in the lateral operation. The transverse perineal artery is divided, but with a little care it is not likely that the internal pudic or the artery of the bulb will be injured. In the old days of operation without an anæsthetic, it was quite possible that one of these arteries might be wounded in the struggles of the patient. The artery of the bulb can be avoided by striking the staff as far back as possible. The hemorrhage from which I have had trouble has been from the prostatic plexus of veins, and this is quite as likely to occur in the median as in the lateral operation, and, indeed, I have seen very profuse hemorrhage from this source after median section.

The supra-pubic operation, although just at present the fashionable method, I should reserve for very large stones, or for cases in which there was some complication such as tumor, in addition to the stone. Cases of vesical tumor are more satisfactorily dealt with through the supra-pubic incision, but where the case is an uncomplicated one of stone, I have not seen any reason to prefer this to the lateral method.

In the female, the operation of lithectasy or rapid dilatation is the one to be chosen, and in almost all cases will be sufficient. Mr. Bryant has shown that stones of considerable size can be removed by this method. In children, stones up to half an inch in diameter, and in adults stones up to one inch in diameter, can be thus removed. If the stone is larger, it can be broken into several fragments before removal. I believe that the results of this method will be more satisfactory than if an attempt is made to remove the calculus by litholapaxy or by any form of lithotomy. The vesico-vaginal section may leave a permanent fistula. The high operation may, of course, be required for very large stones.

As regards the operation of lateral lithotomy, the points which are to be observed are, in the first place, to make a large external wound. I have seen very serious trouble result from too small an external incision. There is no objection to a large wound through the skin and superficial fascia; if hemorrhage occurs, it is easier to deal with it through a large wound, and drainage is more satisfactorily effected. In the second place, I think that it is of great importance to strike the staff as far back as possible. Instead of striking it where it is most superficial, I endeavor to

get as far back toward the horizontal portion of the staff as possible. In that way you avoid wounding the artery of the bulb, and obtain plenty of room where it is needed. My preference is to have the staff firmly hooked up under the pubis, instead of having it made to project in the perineum, I believe that in this way it is more firmly held, and that the surgeon can fix the position of the anatomical points better, and therefore cut with more precision. Having struck the staff, I think, following the advice of Sir William Fergusson, that the deep incision should be made small. I believe that there is a decided advantage in this plan. I do not say that the surgeon should not make the wound in some degree proportionate to the size of the calculus, and in cases where there is a large stone, I am in the habit, as I withdraw the knife, of bringing it slightly away from the staff so as to enlarge the deep wound. In children the knife should be withdrawn in close contact with the staff; but in the adult I drop the knife a little, so as to enlarge the wound in the prostate. The finger is then introduced, and the prostrate enlargement completed by dilatation. I do not at all agree with the view of Mr. Teevan, that it is safer to cut the prostate than to stretch it. In the introduction of the finger, I lay stress on its introduction above the curve of the staff. In children this is very important, for if it is not done, the finger may not enter the bladder, but may pass into the recto-vesical space. The surgeon cannot miss the bladder if he passes the finger above the staff, as it is well held up under the pubis.

In my earlier operations I had a great fancy for the scoop in removing calculi, using it as the obstetrician uses the vectis, getting the scoop behind the stone and the finger in front of it, and bringing all out together. Of late years I have used the forceps more and the scoop less, although at times it answers a useful purpose. In the withdrawal of the stone, a mistake that I have often seen made is in not carrying the forceps far enough backward toward the coccyx. The portion of the wound where there is plenty of room is far back. I have seen surgeons try unsuccessfully to remove the stone through the anterior portion of the wound, when it could have been readily removed if the forceps had been dropped toward the back.

In the high operation it is a great advantage to have the bladder and the rectum distented, though, perhaps, not absolutely necessary. There is an advantage, too, in lateral lithotomy, in having a moderate quantity of fluid, say about four ounces, in the bladder before the operation, as the gush of water, when the bladder is opened, will bring the stone down on the end of the finger. If, however, the bladder is intolerant, I do not care to have it much distended.

With regard to the operation of litholapaxy, the points which I consider to be of importance, are, in the first place, to crush the stone as thoroughly as can be done, and then, when using the evacuator, to make the stream enter with great gentleness. I believe that cystitis may be aggravated or even caused by using to much force. As regards the rapidity of the operation of litholapaxy, I have no doubt that an operator will do it with greater rapidity as he does it oftener, but for my own part, I have found it a slow operation. I think that no surgeon should undertake it who is not prepared to give as many hours to it as may be necessary. I can recall three cases in the practice of other surgeons in which the patients died as the direct result of having a stone left half crushed in the bladder. Violent cystitis came on and the patients succumbed. Where the operation is undertaken, it should be completed. If the surgeon is not prepared to remove the entire stone at one sitting, he should not undertake the operation at all. This is the operation for small stones in patients with healthy bladders. Cystitis is the most dangerous condition in which to resort to litholapaxy. In the case of an adult presenting himself with stone, my first thought is of litholapaxy. I then consider the various circumstances in the case. Litholapaxy has so many advantages in cases to which it is adapted, that I think it should be the surgeon's first choice.

With regard to the objection that lateral lithotomy may render the patient sterile, I do not see why that should be, provided that the operation is confined to one side of the perineum, and that no undue amount of inflammation follows. If there were a great deal of inflammation, it is quite possible that there might be such obstruction of the vas deferens as to prevent the

patient from generating with the testis of that side, but there is no more reason why the patient should be rendered sterile by the operation of lateral lithotomy than by the removal of one testicle. In the immense number of operations performed in former years, we never heard of this objection and I believe that it is rather theoretical than practical.

I have had one case of stone weighing less than two grains, which I diagnosed by the sound, and removed by lateral lithotomy. The patient was a lad who had the symptoms of stone in the bladder, and in addition, frequent attacks of sudden and complete retention of urine, due to the calculus entering and pluging the internal meatus. The straining was so excessive that, in the effort to pass water the night before the operation, the patient ruptured sub-conjunctival vessels in both eyes.

I wish to refer to a few cases of cystotomy for other causes than calculus. I do not include cases where I have operated by Sir Henry Thompson's method of puncturing a contracted bladder above the pubis. I find that I have opened the bladder by cystotomy in eight cases, six of these being cases of cystitis. Of these six, four recovered, and two died, as the result of the diseased state of the urinary organs. In two instances I have opened the bladder for intense pain in the act of micturition, due to a fissure at the neck of the organ. Both patients recovered. In one case the fissure followed cystitis, the result of gonorrhœa, and in the other case, the symptons came on after the use of very large sounds.

I have had one case of cystotomy in a child for tuberculous disease of the bladder. This case was of a good deal of interest. The patient had at one time, been under the care of the late Professor S. D. Gross, who had sounded the child, and said that he felt a stone. It is to be observed, however, that he never appointed a time to operate, so that it is possible that he may have had some doubts as to the diagnosis. A curious feature of the case was that the father, who was a man of considerable intelligence, declared that he had himself distinctly heard the click of the stone against the instrument. I sounded the child, but was not entirely satisfied that a calculus was present, although, from the history, I thought it probable. The child had all the usual symptoms of stone, except sudden arrest of the urine. I asked Dr. Forbes to see the case with me, and we thought it right to open the bladder. No stone was found, but there were discharged twenty or thirty little bodies which I presume were what the older surgeons would have spoken of as fibrinous calculi. They looked like little pieces of cat-gut. Whether these were masses of tuberculous material, or of inspissated mucus and lymph, I do not know. The patient was relieved of his symptoms, but died two months afterward of tuberculous disease of the mesenteric glands.

A CASE OF DIPHTHERITIC CROUP IN WHICH A TRACHEOTOMY-TUBE WAS WORN FOR SIXTY DAYS.*

H. R. WHARTON, M. D.

On December 20, 1892, I saw a child eighteen months of age, who was suffering from diphtheria, who exhibited marked symptoms of dyspnœa. I introduced an intubation tube which relieved the dyspnœa, but at the end of fifteen hours this was coughed up, and I was summoned to see the case again, and found that the dyspnœa had returned. I then performed tracheotomy, and after the operation the dyspnœa was entirely relieved, and the patient subsequently did well.

On the tenth day after the operation the tracheotomy-tube was removed and the patient breathed comfortably, but in fifteen or twenty minutes after the removal of the tube the dyspnœa rapidly recurred and became so urgent that I had to replace the tracheotomy-tube.

Attempts were again made to remove the tube at intervals of a day or two for a week or more with a similar result. Four

* Read before Philadelphia Academy of Surgery, May 1st, 1893.

weeks after the operation the child was etherized and the tracheotomy wound was dilated, so as to expose the wound in the trachea. It was then found that there were a number of masses of granulation tissue springing from the trachea in the region of the tracheal incision; these were removed with forceps and scissors, and the tracheotomy-tube was again introduced. After waiting a few days another attempt was made to remove the tracheotomy-tube, but this also failed. An intubation-tube was introduced upon the removal of the tracheotomy-tube, and was worn for some hours, and upon its removal the child was able to breathe comfortably for five hours; but after this time dyspnœa recurred, and the tracheotomy-tube was again introduced. After several trials of the intubation-tube, it was finally abandoned, and it was decided again to etherize the patient and examine the tracheal wound, fearing the granulations had recurred. The patient was etherized and the tracheotomy wound was enlarged so as to expose the tracheal wound, and it was found that a number of masses of granulation tissue were present; these were removed with forceps and scissors, and their bases were touched with the solid stick of nitrate of silver. An intubation-tube was then introduced, and it was worn for twelve hours, when it was coughed up. Thinking its expulsion was probably due to the irritable condition of the larynx and trachea, resulting from the recent operation, I waited forty-eight hours and then replaced the intubation-tube. To keep the tracheotomy wound open, so that the tracheotomy-tube could be introduced, if it were required, I introduced an obturator into the tracheotomy wound. The intubation-tube was worn for four days and was then removed, and the obturator was retained in the tracheotomy wound for three days longer, and was then removed. The child after this time had no further difficulty with his breathing, and the tracheotomy wound, after the removal of the obturator, rapidly contracted and healed. The patient wore the tracheotomy-tube for a period of sixty days.

A case of intubation of the larynx, in which the tube was worn for fifteen days.—On February 24, 1893, I saw, with Dr. H. M. Fisher, an Italian child less than two years of age, suffering from marked dyspnœa, which had come on gradually in the previous forty-eight hours. I introduced an intubation-tube in this case, which completely relieved the dyspnœa, but it was coughed up in twenty-four hours, and the next larger tube was introduced. On the third day, the tube was removed and the child breathed comfortably for half an hour, but after this time the dyspnœa gradually returned and the tube had to be reinserted. Another attempt was made on the sixth day, and the tube was kept out for three hours, and after this time the dyspnœa recurred and I was compelled to reintroduce the tube. Attempts to remove the tube were made at intervals of two days, with a like result, and it was only on the fifteenth day that the tube was permanently removed.

In this case I noticed in each removal of the tube that there was little expectoration of mucous or membrane and that the cough was croupy, and it was observed that at the time of the final removal of the tube that the cough was loose.

In all acute cases the patient is usually able to dispense with the intubation-tube in from five to eight days; this case wore the tube for fifteen-days, the longest period in my experience that an intubation-tube has been required.

Two cases of excision of the hip-joint for Coxalgia.—I. Harry O'Neill, aged seven years, was admitted to the Children's Hospital April 27, 1892, having suffered from coxalgia for two years, and been under treatment in three different hospitals before he was sent to the Children's Hospital. When he came under my care there was a sinus on the outer aspect of the thigh which had been made for drainage, upon the anterior surface of the thigh over the hip-joint.

On July 5, 1893, as the patient had suffered some time with a high temperature, and as he was rapidly loosing ground I decided to excise the hip-joint, and upon exposing the joint I found the head of the femur separated and represented by a small irregular sequestrum, and the neck of the femur had undergone marked absorption, the acetabulum was roughened but not perforated. The patient did well after the operation; the wound healed promptly and he was sent to the country branch in two or three weeks after the operation.

I show the patient, ten months after the excision of hip-joint, and you see he has a very firmly healed wound and a very good range of motion at the false joint; his general condition is also excellent.

II.—Charles G., aged eleven years, suffered from coxalgia when eight years of age, was treated at the Children's Hospital as an out- and in-patient for several years, and finally his condition became so bad by reason of the free discharge from sinus in connection with the hip-joint, and from his continued high temperature, that excision of the hip-joint was decided upon. The joint was excised in June, 1891, and the patient had a slow convalescence, but finally the wound healed, and the patient's general condition improved.

I show him to-night, nearly two years after the operation, and you see that he has a remarkably free range of motion at the false joint, and his general condition is excellent.

Specimen of fracture of the right femur, showing the condition of the bone eighteen days after the injury, from an infant eihtg months old.—Emily S., eight months old, was admitted to the Children's Hospital, June 18, 1892, having sustained an injury of the right femur from a fall ten days before admission. Examination showed that there was a fracture of the shaft of the right femur. The child was suffering from enterocolitis at the time of admission, and was quite sick; the fracture was dressed with a moulded binder's board splint. The patient grew gradually worse, and six days after admision developed a temperature of 107° and died. Examination of the specimen shows marked overlaping of the fragments at the seat of fracture, the shortening being at least one inch.

This specimen is of interest, as it shows that contrary to the generally accepted teachings that there is little shortening in fractures of the femur; in infants, that marked overlapping of the fragments may occur, giving rise to very considerable shortening.

SUTURE OF TENDONS.

DR. JOHN B. CRANDALL, Sterling, Illinois.

M. L., a mechanic; married; aged 51 years; in general good health, with the exception of atrophy of the left shoulder from an old injury, (for which he is at present drawing a pension) and subjective symptoms of old rheumatic lesions of some of the larger joints—says his flesh never healed readily.

On December 15th, 1892, the patient received an injury to the right hand by getting it caught in a "shaper," cutting a gash some 2½ inches long diagonally across the back, completely severing the tendons of the extensor indicis muscle as well as the tendon to the index finger from the extensor communis digitorum.

The hand was covered with mechanic's oil and blacking. With brush, soap and hot water we made the surrounding parts as nearly aseptic as possible, washing out the wound with a solution of bichloride of mercury. The proximal ends of the divided tendons were retracted, their sheaths more or less torn, wnile the power to extend the middle finger was lost.

The ends of the tendons were caught with artery forceps, approximated and retained in position by sutures of catgut which had been preserved in oil of juniper. I found that it required a great deal of nicety to properly adjust the ends of the tendons as they were cut diagonally across, but that difficulty was remedied by having the suture follow the line of the incision. The sutures were buried, as good a covering as possible made for the sheath, and the external wound closed with silk sutures. The dressing consisted of several thicknesses of iodoform gauze covering the dorsum of the hand with a retaining splint upon the palmar surface.

I was called out of the state and did not see the case for three days. On the second day after the injury, he had some pain but would not allow my assistant to dress the wound. When it was redressed on the third day, I found more or less œdema of the hand with some pus formation at the seat of the wound. A small amount of pus could be pressed out from along the

tract of the tendon of the middle finger. As the sheaths of all the extensor tendons were either bruised or torn; I injected Marchand's peroxide of hydrogen and removed all of the pus within reach.

After this dressing, the patient kept about his work, coming to my office every second day to have his hand redressed. During the third week he was taken with a chill, following exposure to the cold. The hand and arm was very much swollen with an erysipelatous flush covering the whole forearm and the inside of the arm to the axilla. Removing the splint, I enveloped the whole arm in a wet dressing composed of a solution of borax and boracic acid. He was confined to the house for two weeks or more, the inflammation gradually being reduced by the use of the wet dressing. While the solution used was of much benefit, I cannot help thinking that probably hot water alone would have given the same result.

At present the case has exceeded my expectations; the tendons have united in good form and he has control over the tendons of the extensor communis digitorum as well as the use of the tendon of the index finger alone.

The remarkable feature of the case is that we should get such a good result after having so much inflammation and general disturbance of the system—all of which could have been avoided if the patient had kept away from his shop and taken better care of himself from the start. It goes to show that tendons will unite if the proper attention be given them.

LIFE INSURANCE AND ITS RELATIONS TO U. S. PENSIONERS.

A. O. STIMPSON, M. D., Thompson, Pa.

Studium immane loquendi, has given rise to the frequent enunciation of an old aphorism, viz: "There are tricks in all trades but mine." Unfortunately, the application to our honorable profession would seem to be incongruous if we are to follow out closely the individual actions and characteristics of its members. When we see men prostituing their talents and abilities for the unworthy purpose of securing pensions for men who are in no way dependent upon, nor deserving of them, it certainly behooves some honest member of the guild to deprecate and expose the evil.

For the past fifteen or eighteen years I have had frequent occasion to furnish evidence in the furtherance of such claims and in many instances I must say that the request was worded in such a way as to make it seem a personal insult. In many instances the evidence sought for was just and all right, as the claimants were, at the time the application was made, suffering from both direct and remote effects of wounds and diseases contracted while in military service; but on the other hand there are a class of old soldiers that were undeserving of pensions, since they went into the service voluntarily for the sake of the big bounties the Government were paying for substitutes, because they courted the honor and notariety that the position of a soldier would give them among their fellows, and also because they stood a chance of promotion in the ranks. Of the *worthy* class of soldiers we have nothing to say; but the *unworthy class* are the ones that are most importunate and unreasonable in their demands for services rendered.

I have known of men who enlisted for three months service, with the payment of a big bounty as an incentive, clamor for fifteen or eighteen dollars per month pension as if it were deserved, when they had not a single wound to show as a mark of service and oftentimes were not even engaged in active service.

There are many old soldiers living today that are fully entitled to all that they receive and in many cases do not draw pensions adequate to their disabilities and wounds. On the other hand, many undeserving ones are receiving big monthly pensions where they do not deserve any.

Those whose decreptitude and infirmities result from age and the vicissitudes of life, from careless exposure, etc., ought not to be recognized as worthy pensioners.

How have these unjust claims been substantiated? By fraud and speculations of pension agents, and by manufactured evidence furnished by unscrupulous medical examiners for the sake of the few dollars paid them by the applicant.

I know of men to-day who are considered wealthy, loaning money at various rates; who clamor for pensions of eighteen and twenty dollars per month, who have not a wound or single physical disability that they can conscientiously claim was caused by wounds or privations while in the U. S. service. Why were such claims allowed? Political influence and social standing were the substitantiating causes of their claims being allowed. I am frequently called upon to examine U. S. pensioners for life insurance. Does it not seem incongruous to have such a subject written down as a first or second class risk, yet on careful and conscientious examination you cannot consistently refuse to accept him as a perfectly safe risk. Now the question arises, how did he establish his claim for an invalid pension unless through fraud. Either his pension examiner was remiss in his duty in furnishing him with an affidavit as an invalid pensioner, or the life insurance medical examiner was a charlatan in passing him as a worthy policy holder. Can an invalid soldier become a bona fide life insurance policy holder? Certainly not. The two conditions and requirements are incompatible. Yet I am sorry to say that the number of such cases are not few. Either the pension examiner is over zealous in the interests of the soldier, or the life insurance medical examiner in his profession. Life insurance companies cannot be too careful in their selection of medical examiners and on the other hand, the pension department, should not be so willing to accept of evidence of disability, promiscuously from any one who writes M. D. after his name.

Let us hear from other members of the fraternity on this subject as I do not consider it by any means complete or exhausted.

CLINICAL OBSERVATIONS IN NEW YORK.

W. H. LINK, Petersburgh, Ind.

Dr. Jno. A. Wyeth, of the Polyclinic is one of New York's great surgeons. He is doing some very excellent work in the plastic surgery of the face and nose. He has lately done his second successful bowel resection. Lateral, or end to end anastomosis finds no favor with him. Circular enterorrophy by means of the C. Zerny and Lembert suture is the method relied upon. In the radical cure of hernia he bosses the sac just at the entrance of the internal ring after the method of McEwen and he treats the canal after the method of Bossini, thus combining the excellent features of each. Antisepsis has a strong hold on him yet, and while he does not forget to be antiseptic, he yet relies upon the protective influence of chemical germicides, and of these bichlorides is his preference.

Dr. Wyeth is a graceful, cool and thorough operator and his results place his qualities as a surgeon in an enviable light. He is a splendid example of the Cosmopolitan character of New York City. A southern man by birth and education, he boldly swung out his sign in New York and has achieved a phenomenal success. A success which does not always follow because one has merit. New York is filled with successful men from the south. Thomas, Emmet, Bozeman, Wyeth, Wylie, Polk, and a number of others are all from the south-land. It would seem that the idea that only inhabitants of the north are blessed with energy has a poor foundation, at least in medicine; for it is only the possession and exhibition of the most heroic energy, coupled with marked ability, that crowns with success the efforts of any man in a great city like New York.

Dr. Wyeth's kindness to visiting physicians is something long to be remembered. He appears to bear the advance of time quite cheerfully and no one would suspect him to be growing old by either his appearance or his manner.

The only thing in Wyeth that a Hoosier does not like is he still thinks his Camp Morton stories, as published in the *Century*, are true.

Thomas H. Manley is another surgeon of N. Y. who is rapidly coming to the surface. Like most successful men he was born and reared in the country. Tiring of Massachusetts, he came to the Metropolis and both as an operator and writer he is regarded very favorably by the profession.

He has lately done some valuable work in compound fractures and urethral surgery and has now in the printer's hands a work on hernia that will, no doubt, be a welcome addition to the few distinct treatises on that subject. Dr. Manley's book goes deeply into the history of hernia and he shows that almost every operation device or instrument for the cure of this condition was discovered and applied by the ancients, who were likewise fully up in the anatomy and pathology.

Dr. Manley is a small, delicate man of about 250 pounds weight and is as jolly and wholesouled as his proportions would indicate. He is a fine operator and takes great pleasure in showing his work at the Harlem Hospital, to which he is a visiting surgeon. Dr. Manley is a strong advocate of asepsis and carefully exemplifies its underlying principles in his work, but he thinks the day of germicides is past and that in another decade the complicated system of antiseptics will give way to the simplicity of asepsis.

Dr. V. P. Gibney, who is surgeon in charge of the Hospital for Ruptured and Crippled, is another of New York's great men. He is certainly a master in orthopædics and the little children at the hospital under his care appear to fairly idolize him. He treats abscesses due to hip-joint disease, by simple aspiration. His results are excellent.

He has lately devised a new treatment for sprains of the ankle joint. It consists in putting on a scultetus bandage of rubber-plaster so as to fortify the injured joint and then permitting or ordering the patient to walk. In old sprains of this joint he breaks up adhesions under ether and then treats it as an acute injury. By this means he promotes absorption of exudates and cures the patient.

New York is certainly a great field for general surgery and he who is looking for clinical observation in that line can not find its equal in America. The number of first-class operators, who are constantly operating, is so numerous that one can not, for lack of time, avail himself of half his opportunities. The excellence of the work done is unequaled anywhere and every man vies with his friends in showing his work.

LEPTOTHRIX MYCOSIS OF THE TONSIL, PHARYNX AND BASE OF TONGUE, WITH REPORT OF THREE CASES.*

WM. CHEATHAM, M. D., † Louisville Ky.

B. Frankel, of Berlin, in 1873 pointed out the presence of Leptothrix threads in an affection of the tonsils, base of tongue etc., which had before been known as follicular inflammation of these parts. Some authors have since gone so far as to say that they are one and the same diseases ; that they all contain the leptothrix threads. I feel assured there are two entirely different diseases ; that the presence of follicular tonsillitis, makes one more liable to have mycosis of the part as leptothrix threads are present in most of our mouths most of the time. In follicular diseases of the tonsils, there is more constitutional disturbance ; the contents of the lacunæ is yellow and easily detatched. The microscope shows the absence of the leptothrix threads. The deposits are scarcely ever above the level of the tonsil surface. I have taken a syringe in a case of chronic follicular tonsillitis, passed the tip into one of the openings in the tonsil and washed out dozens of small lumps of secretion, which have a disagreeable odor. These deposits are within the lacunæ and

*Medico-Chirurgical Society of Louisville, April 7th, 1893

† Professor of Diseases of the Eye, Ear, Throat and Nose, Louisville Medical College.

the tonsils are usually enlarged ; the disease is curable ; in many cases it responds to treatment readily. These symtoms do not hold good in all cases.

In mycosis leptothricia of the tonsils, the tonsils are usually small ; usually so small you cannot get hold of them with a tonsillitome to remove them : there is no constitutional disturbance ; no bad odor ; patient complains of foreign bodies, such as hair, fish bones and splinters of tooth picks being in their throats. The deposits are white or yellowish-white, most always very difficult to detach ; frequently cannot be even curetted away. Have to, in a majority of cases, be torn off with forceps ; are elevated above the surface of the tonsils ; sometimes pedunculated ; often look like small spurs ; are frequently located not in the crypts but away from them ; may be on the pillars of the fauces. The microscope shows numerous leptothrix threads present. Jaksch says, "These threads are long bacilli, usually segmented and arranged in large ribbon-like bundles ; they stain bluish-red in iodine-potassic—iodide solution ; shorter bacilli are sometimes present, which do not stain."

O. Chiari, says he considers it a modification of follicular angina, and that yellowish plugs which do not contain leptothrix are often found in the crypts of the tonsils. Ingalls in his late work on "Diseases of the Chest, Throat and Nasal Cavity" page 369, says "mycosis of the throat, characterized by yellowish-white deposits resembling in some cases those of follicular tonsillitis." It will be opserved that Dr. Ingalls believes in the duality of the affection. On pages 370 and 371 he gives side by side the points in the differentation of the two affections. In the "*New York Medical Journal*" of December 3,1892, Dr. F. I. Knight, of Boston, publishes a paper on this subject, that he read before the "American Laryngological Association." This same journal also contains a discussion of the paper by Drs. Delaney, De Blois, Johnston, Mulhall and others. Wright, Mulhall, Beverly, Robinson and Langmaid, in fact a majority of those present appeared to believe in the duality of the affection ; the others gave no opinion on this point.

Dr. Knight says in his article that "In the April, 1882, number of the *Archives of Laryngology* Dr. Emil Gruening, of New York, published an article (without any allusion to the previous publications of Frankel) which began thus : "While the constant presence of leptothrix elements in the mucus of the mouth and the frequent occurence of concretions in the tonsillar crypts are facts with which every medical man is conversant, the relation existing between leptothrix buccalis and the formation of tonsillar concretions does not seem to have been recognized even by the throat specialist." From an examination of fifty cases, Gruening advanced the proposition that all tonsillar concretions were composed of leptothrix elements, and that the calcification of these masses might be induced by the presence of the alga leptothrix, just as the presence of certain non-parasitic algæ in liquids containing salts of calcium in solution induces precipitation of the calcium in the form of carbonate. He further says that "the presence of these concretions in tonsillar crypts and carious teeth is merely a substantiation of the more general fact that leptothrix concretions will form in all these normal and pathological recesses of the mouth and pharynx which are not reached by the ordinary process of cleansing, remain undisturbed by any mechanical action during the process of mastication and deglutition, and are devoid of any secretory *Vis a Tergo* sufficiently potent to dislodge the parasite."

"This is a strong statement of the case by one of those who believe that the parasite is the *Fons et origo malis*"

"It would, however, seem reasonable to classify those cases in which the growth has become excessive, and is rapidly reproduced again and again on removal, as cases of mycosis, whatever the exact mode of origin, and although it is difficult, as stated by Newcomb, to say just where the process ceases to be a natural accident and becomes a pathological entity, the typical cases of tough, adherent, spear-like, projecting masses can be set down as cases of mycosis, but the less marked cases will be hard to classify."

I have just seen a most typical case of so called chronic follicular tonsillitis, with deposits on the base of the tongue, also with no leptothrix threads.

Four or five years ago, I had under my observation two healthy school girls, with

tonsils very small, in fact almost no tonsils at all. Yet what remained of them was studded with hook like deposits of leptothrix. These deposits were not only on the tonsils but over the base of the tongue, the pharynx and the faucial pillars ; the curette was used, and all kinds of applications made, with a rapid return of the deposits. Both cases were finally relieved by stopping all sweets, and giving the alimentary tract the correct attention.

March 3rd, Mrs. R. was sent to me by two Indiana physicians. She had had for several years an affection of the throat. Her family being tuberculous, her friends and physicians were much alarmed concerning her. She presented a most typical leptothrix mycosis of pharynx, faucial pillars, tonsils and base of tongue. Those on the base of the tongue were flatter and larger than those on the other parts Plate xxxvi, in Dr. Robert Krieg's Atlas of Diseases of the throat, etc., gives a splennid picture of the disease as seen in Mrs. R's case. I had considerable difficulty in getting enough of the deposit off, as it was so adherent, for a mount for the microscope ; the microscope showed the threads of the leptothrix to be very plentiful. Mrs. R's throat at times gives her no trouble, as the disease occasionally gets well of itself, to return again in weeks, months or years.

Leptothrix Mycosis of the throat is very difficult to cure. The teeth should be investigated, for there you may find a nidus for the parasite. This is said to assist in the production of tartar and decay of the teeth. The deposits should be removed if possible by forceps, or the curette, or still better a galvano-cautery point should be inserted into each deposit, applying it to several each day, and making the applications not to close together. This treatment is slow, painful and tedious, Cocaine will of course correct the second. This treatment gives the best results. Again, all food (such as sweets) which are liable to ferment in the alimentary canal should be stopped, and the canal kept as aseptic as possible. Sometimes the disease dissappears, as I stated before, without treatment, again no treatment does any good, then again calomel internally with the alkalies,and salol and naptholine may make a cure, but when you come across a genuine case of mycosis leptothrix pharyngea, do not make any promise of permanent relief. They may hang on for years, and pass from physician to physician, yet got no benefit.

SOCIETY REPORTS.

AMERICAN MEDICAL ASSOCIATION.*

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

June 6th, First Session.

Dr. J. M. Duff, Pittsburgh, Pa., Chairman.

Dr. M. B. Ward, Kansas, Secretary.

First in order was the Address of the Chairman. Dr. Duff selected for his subject "Some General Reference to Obstetrical and Gynecological Advancement."

He said the large number of papers offered from all parts of the country, from men of the highest standing in the profession was significant of the general zeal and the welfare of the American Medical Association. He referred to the duty of the Chairman, the object of meeting, the work of the past year, new recruits, educational advantages, our literature, etc.

Regarding operative work, the solicitude of many with reference to the operative mania which had taken possession of the profession during the past few years, was not without cause. No one would have the temerity to deny that there had been, and yet is at the hands of some, too much indiscriminate, useless and oft-times reckless abdominal, gynecic and obstetric sur-

gery. The past year had witnessed a great improvement in this direction.

Cancer of the Uterus.—Few diseases were more prevalent than cancer of the uterus and none was formerly more universally fatal. There was now a very general consensus of opinion that the disease was of local origin, and not, as formerly supposed, a general disease with a local manifestation. In 474 hysterectomies at the hands of five different operators, there was a primary mortality of only 8.4 per cent. At the end of two years, in 56.25 per cent. of eighty-two vaginal hysterectomies done by Leopold, the patients were living without a recurrence of the disease.

The gynecological treatment of the insane was one of the live topics during the year. The intimate relationship existing between the brain and generative organs would rationally lead us to infer that in women predisposed to insanity, disease of the latter might be an exciting, if not a direct cause of mental alienation in some cases. Absolute proof could be found in the results of a number of operative procedures undertaken, only after the most painstaking investigation, by Joseph Price, Alice Bennett, W. P. Manton, J. B. Murdoch, Geo. H. Rohe, C. C. Hersman, and a number of others.

Dr. Duff then dwelt upon pubeotomy, criminal abortions, placenta previa, and puerperal infection.

Dr. Charles P. Noble, of Philadelphia, read a paper entitled The Causes of Diseases of Women.

He called attention to the fact that within recent years the thoughts of gynecologists had been largely occupied with the study of the pathology and treatment of tubo-ovarian disease, and that as a consequence very little had been said in a systematic way concerning the causes of the diseases in women. The object of the paper was to present a brief outline of the nature of the causes of diseases in women, and to point out the fact that these causes were largely of a preventable nature. The principal causes of the diseases of women were: (1) imperfect development of the sexual organs; (2) gonorrhœa; (3) septic inflammation following child-birth; (4) lacerations due to child-birth; (5) miscellaneous causes, including constipation, erronous habits of life and errors of dress. The above causes were then expatiated upon *seriatim*.

Dr. Howard A. Kelly, of Baltimore, called attention to the great importance of tuberculosis of the female genitalia. Many of the cases that came under his observation were tubercular in character. He should say that at least five per cent. of the cases of inflammatory diseases upon which he operated were tubercular.

Dr. Henry P. Newman, of Chicago, said prophylaxis would have its day. It was comparatively easy to institute prophylactic measures that would prevent a very large per cent. of the diseases now prevalent among women.

Dr. E. P. Davis, of Philadelphia, directed attention to neuralgias, not only those dependent upon malnutrition or anemia, but more particularly those of the pelvic viscera.

Dr. Joseph Price, of Philadelphia, was satisfied that of menstrual disorders, many begin in infancy; and that vulvar and vaginal discharges of infants were neglected. It was exceptional for the physician to treat these conditions in the infant. Some of the infantile conditions were over-treated, and many young women would conceive and bear children if let alone in the first place.

Dr. Reed, of Ohio, said deranged or vicious menstruation grew of imperfectly developed sexual organs. The most difficult cases he had to manage were those in which both the uterus and other organs were undeveloped.

Dr. Henry J. Carstens, of Detroit, could not entertain the opinion that gonorrhœa was the cause of nearly all the diseases in women. The habit of women inducing abortion was an etiological factor of paramount importance.

Dr. Hoff, of Ohio, entered his protest against the charge of so many young girls having gonorrhœa. While this might be so in Philadelphia, it would not hold good in Ohio.

Dr. Joseph Hoffman, of Philadelphia, called attention to affections of the bladder incidental to parturition, and also to the pre-puerperal state as brought on by constipation and by dislocation of the uterus, etc. He thought many of the troubles with which women were afflicted, such as displacement, retroflexion, subinvolution, etc., could be avoided by insisting that more women remain in bed for two weeks after child-bearing.

Dr. E. H. N. Sell, of New York City, cited families in which the younger members, boys and girls, had gonorrhœa. In one case the disease traveled and involved both bladder and kidney.

Dr. L. S. McMurtry, of Louisville, said intra-pelvic inflammations were sometimes the result of forcible dilatation of the cervix. He was perfectly satisfied that a great many cases of tubo-ovarian disease were the result of habitual and routine use of caustics upon the cervix uteri.

Dr. James P. Kerr, of Pittsburg, followed pith a paper on *Puerperal Hemorhage.*

There was no class of cases which required more prompt action and wise judgment than that of puerperal hemorrhage. After dwelling at length upon the causes, the author said that every case should be treated as one by itself, and as though hemorrhage was impending. Attention should be directed to securing tonic contractions and retractions of the uterus as a prophylactic. This was done by carefully following the uterus down with the hand when the child was expelled; also by making pressure over the fundus and by external manipulations. If the uterus was soft and flabby give some of the preparations of ergot, preferably ergotine by hypodermic injection. Misrachi claims that caffein acts more readily than ergotine if the patient has lost much blood. Bossi considers hydrastis canadensis a very useful remedy in the treatment of hemorrhage, both during pregnancy and after parturition; administers it to patients with a predisposition to flooding and claims excellent results. Murray advocated plugging the vagina where the os was dilated. Dr. Kerr did not think this was good practice. The mode of treatment recommended by Kochs he considered novel. It consists in inverting the uterus, and putting an India rubber band around the neck of the inverted organ; at the end of six hours the band is removed and the uterus replaced.

JUNE 7TH—SECOND DAY—MORNING SESSION.

The first paper read was by Dr. T. Ridgeway Barker, of Philadelphia, entitled

THE ROUTINE PRACTICE OF ADMINISTERING ERGOT AFTER THE THIRD STAGE OF LABOR.

To summarize the advantages derived from the routine employment of ergot after labor, he said one was justified in stating that

1. It ensures the woman against possible uterine relaxation.

2. It causes a reduction in the size of the uterus, which consequently encroaches less upon the pelvic viscera.

3. The vessels in the uterine muscular walls are depleted and the force of the blood current reduced.

4. It secures permanent closure of the uterine sinuses and allows the formation of firm clots at the mouths of the lacerated vessels.

5. It reduces the area of the denuded placental site, thereby lessening the danger of the entrance of septic matter into the circulation.

6. It materially and markedly diminishes the size of the uterine cavity with the resultant expulsion of all *débris.*

7. It shortens the duration of after pains, and renders the occurrence of fermentative changes within the cavity impossible.

8. It hastens and facilitates the physiological processes incident to involution.

9. The tablet triturate form of administration is to be preferred, since it is rarely attended with nausea or vomiting.

10. That it never does any harm in suitable doses and is always productive of good.

Quite the contrary he belives to be the case, and has so placed himself on record, when ergot is prescribed during any of the three stages of labor. It is then a dangerous remedy and one likely to do far greater injury than any fancied good.

Dr. Geo. I. McKelway, of Philadelphia, followed with a paper entitled

REPEATED EXTRA-UTERINE PREGNANCY WITH THE REPORT OF A CASE.

After describing the case in detail, and mentioning cases that had come under the observation of others, the doctor took the position that in all cases in which upon operation a tubal pregnancy was found, the ovaries and tubes of both sides should invariably be removed.

Dr. Henry J. Carstens, of Detroit, read a short paper entitled

PORRO VERSUS CÆSAREAN SECTION.

The author had reported a successful Porro operation last year, and said it was

peculiar that he should be able to report another case within six months. The second case was in brief as follows:

Mrs. S., aged 23. In the fall of 1891, he was called by Dr. W. J. Brand to help him deliver her. She had been under the care of a midwife for twenty-four hours when he was called and failed to deliver her with forceps. As the child was dead, the only thing to do was to perform craniotomy. Even after craniotomy it was quite difficult to deliver on account of the narrowness of the pelvis. When this was finally accomplished, he took careful internal measurement with the pelvimeter and found an antero-posterior diameter of less than three inches. She made a slow, but good recovery. She was told that if she ever became pregnant again that it would be necessary to bring on premature labor. Patient was anxious to have a child and did not think that a seven months child would live, although told of the danger and need of Cæsarean section if she went to full term. She again became pregnant and only told Dr. Brand two weeks before her expected time. It was decided to operate at once. Patient was prepared for an abdominal section. The bag of water was first ruptured and then the usual incision was made. The uterus was rolled out á la Muller, an elastic ligature applied, then the uterus quickly opened and a child weighing eight pounds removed. Dr. Carstens was undecided to do a Porro, but all the other physicians present were unanimous for it, hence he applied a clamp. He removed the uterus, tubes and ovaries. The after-treatment was like any other cœliotomy, and her recovery smooth. She nursed her child from the first and left the hospital twenty-five days after the operation. At present she is the picture of health.

Dr. Giles S. Mitchell, of Cincinnati, reported a

SUCCESSFUL CASE OF CÆSAREAN SECTION.

The patient was twenty-four years of age, primipara, rather delicate and of a highly nervous temperament. The abdominal incision was eight inches in length, two-thirds of it being above the umbilicus. There was very little bleeding from the abdominal parietes. As soon as the uterus was exposed a loop of rubber tubing was slipped over the fundus and brought down to the neck. The uterus was then quickly opened, the incision being about six inches in length, through the fundal and middle zones. Delivery was speedily accomplished by means of the feet. The child, a male weighing seven and one-half pounds, was asphyxiated, but Dr. Reed soon succeeded in resuscitating it. The stitches were removed on the seventh day after operation, union having taken place by first intention along the entire wound. On the tenth day, the patient was well from a surgical standpoint.

SECOND DAY—AFTERNOON SESSION.

Dr. J. N. Martin, of Ann Arbor, Mich., read a paper entitled

METHODS OF REMOVING THE UTERUS FOR UTERINE FIBROIDS, WITH REPORTS OF CASES.

Dr. Joseph Price, of Philadelphia, contributed a paper on

METHODS AND MATERIALS IN ABDOMINAL AND PELVIC SURGERY.

He said, in gynecology much of the early work was experimental in character. Methods were tried and abandoned, and then again revived as new and original.

Regarding vaginal hysterectomy for diseased appendages, he said the present procedure was an imperfect one and dangerous in the hands of any one, no matter what their surgical experience and skill. The adhesions omental and intestinal, commonly found in the removal of all adherent forms of disease, must be dealt with from above. The removal of the uterus was a simple matter, but dealing with complications above required painstaking surgery to save the patients and to relieve them from primary and secondary complications, which were always serious. In cases of peritonitis, whether due to infection through veins, lymph channels, perforating ulcers, suppurating appendicitis or dermoids, the treatment should be prompt, radical and thorough. Seek the cause. The abdomen once opened, there should be no hesitation in removing it, whether it be appendix, dermoids, suppurating tubes, or a section of intestine. All operators should have an accurate knowledge of their materials. Only imperfect work can

follow the use of large coarse silk. Accidents, hemorrhage, abscesses, fistulæ, and a variety of post-operative sequelæ follow its use, as they do also the use of bad qualities of cat-gut. Pure, fine silk, well placed, is rarely followed by any trouble.

THURSDAY, JUNE 8,—MORNING SESSION.

The Section was called to order by the Chairman at 9 o'clock.

The first paper read was by Dr. Henry O. Marcy, of Boston, entitled

VENTRAL HERNIA FOLLOWING LAPAROTOMY, ITS CAUSE AND MEANS OF PREVENTION.

The author said that laparotomy from a great variety of causes was now becoming so frequent that any method of improvement in its technique, or results, became of much greater importance than formerly. The attention of surgeons to the more essential factors of the operative procedures within the abdomen had very naturally caused the parietal wound to assume minor consideration, and, as too often treated by even practical surgeons, seemed to be looked upon as a trivial matter. However, it was admitted that about ten per cent. of all laparotomies resulted in ventral hernia, and in order to lessen or prevent this, it was quite the standard rule to apply a lacing abdominal support to be worn for months. During the last eight years the speaker had employed exclusively the buried tendon suture in the closure of all abdominal wounds, except for a few months, during which time cat-gut was substituted for tendon. His method from the first had been essentially the same. The peritoneum is closed separately. This may be effected by suturing in a variety of ways. He employs usually the double continuous tendon suture which is easily and rapidly taken, by the use of a needle with the eye near the point, and which by rethreading with the opposite end, permits the introduction of the suture from either side through the same puncture. The result is an even, continuous and close apposition of the serous surfaces of the peritoneum, retained at rest without undue constriction. A fine tendon should be selected for this purpose. Dr. Marcy considers the accurate coaptation of the thick, investing fascia of the first importance. This is preferably effected by a line of sutures taken in a similar manner to the one closing the peritoneum. In quite 300 laparotomies, where a complete closure of the wound had been effected, he recalled but two cases of ventral hernia following the operation. One of the most common causes of hernia he considered to be the routine use of drainage tubes.

THE ESSENTIALS OF SUCCESS IN VAGINAL HYSTERECTOMY.

This was the title of a paper contributed by Dr. Henry T. Byford, of Chicago.

The author maintains that vaginal hysterectomy is an operation attended with little danger, and that the present mortality is caused mostly by

1. Operating upon unsuitable cases.
2. Imperfection in the technique.
3. Mistakes in the after-treatment.

He summarizes as follows:

1. Operate only upon cases in which we can operate in healthy tissue.
2. Use the method and maneuvres adapted to each individual case, not adhering rigidly to any one for all cases.
3. Ligature enables the surgeon to do a more complete operation than forceps, but forceps should be used when ligature cannot be applied with accuracy.
4. When possible, place omentum between the intestines and the stumps.
5. Draw the ligatured stumps together and attach the peritoneal edges either to the vaginal edges or to each other.
6. Pack iodoform between the blades of the forceps, but do not allow the packing to project upward between the intestines.
7. Leave the packing for four days as a rule.
8. Begin douches about eight hours after the packing is removed and use a return tube the first time.
9. Keep the patient on the back for forty-eigty hours.

He reports thirty-five cases with one death, or a mortality of 2.85 per cent.

THE PROPRIETY OF OPERATIVE MEASURES IN PELVIC PERITONITIS.

Dr. Lewis Schooler, of Des Moines, Ia., read a paper on this subject. He said the decision as to the propriety of operative measures and the time when they

should be resorted to in pelvic peritonitis were frequently beset with the greatest difficulties, and the only rule in acute cases, that seemed to him to apply at all generally, was one laid down by some author in intestinal surgery. That as soon as it was apparent that other means would be of no avail, the time for operative interference admitted of no delay. In chronic cases or cases with frequent recurrences, or chronic cases as regards time and acute with regard to symptoms, there were two periods when operation is justifiable. The first, when life was endangered during a recurrence, the second, after the subsidence of an acute exacerbation. This he regarded as the preferable period, but unfortunately it could not be always secured; first, for the reason that the acute stage might demand relief; secondly, the patient frequently refused the tender of relief of this character while the suffering was not intense. Under this head might be included all those cases of encysted collections of pus, gonorrhœal or otherwise, tubal collections of whatever character; diseased and degenerated ovaries, adhesions which gave the semblance of tumors by the distortion of the pelvic organs, and the consequent impairment of their functions, as well as all mental and nervous disorders that were directly traceable to disease of the pelvic organs.

THIRD DAY—AFTERNOON SESSION.

Dr. M. B. Ward, Topeka, Kansas, read a paper entitled

SURGICAL TREATMENT OF UTERINE FLEXIONS.

The author has found it extremely difficult, and very often impossible, to afford permanent relief in a large majority of cases of chronic retro-flexion by the methods usually recommended. He thought it was comparatively easy to give temporary relief in many cases, if gynecologists would persistently treat the patient by placing her in the the knee chest position, and gently rise the fundus and tampon the posterior vault with cotton wool, saturated with boro-glycerine. He referred to this method because he considered it as good, if not the best plan of treatment. When it is impossible to replace the uterus in the normal position on account of adhesions, this treatment softens the adhesions, relieving engorgement, and gives comfort. But the larger number of patients will give histories of long suffering, many attacks of pelvic peritonitis—some mild, some severe,—which will readily indicate that serious complications must be overcome before the uterus can be brought forward to the normal position. It is this class of cases that he was considering in the paper. His custom is to say to the patient that the local treatment will give comfort, and if she can exercise due patience she may be permanently relieved. He always informs them of the possibility of failure. The next plan recommended is to do an abdominal section, break up the adhesions, remove the appendages, if they are diseased, bring the uterus forward, all of which may be done in a few minutes safely, and he believes the patient will speedily and permanently recover. When surgical measures were indicated as the only source of relief, we should not refuse to employ them, even though it may be found necessary to remove organs adjacent to the uterus.

Dr. Franklin H. Martin, of Chicago, read a paper entitled,

A NEW OPERATION FOR UTERINE FIBROIDS, WITH REPORT OF CASES.

The author made a second supplementary report on his new operation of vaginal ligation of a portion in the broad ligament of the uterus for uterine tumors. The operation consists in the ligation from the vagina of more or less of the broad ligament with its vessels and nerves, the extent of the ligation depending upon the result sought, from a simple ligation of the base of the ligament, including the uterine artery and branches of both sides, without opening the peritoneum, to a complete ligation of the ligament of one side, including both uterine and ovarian arteries, with partial ligation of the opposite ligament, without opening the peritoneal cavity, if possible, but doing so if necessary.

The doctor reported five cases, two of these were reported in his first report of the operation. The result in the five operations were given up to date.

PROLAPSE OF THE FEMALE PELVIC ORGANS.

Dr. Henry P. Newman, of Chicago, read a paper with this title. He briefly called attention to prolapse of the female

genital organs with particular reference to their hernial nature. He regarded them as having a similar etiology, and the same pathological signficance as herniæ in other situations, and amenable to analogous kinds of treatment. He formulated the following conclusions:

1. Pelvic herniæ should be recognized and classified as such, and not as diseases of the uterus and adnexa; and their treatment should be based upon hernial pathology.

2. Prophylaxis, in the formative stage of puberty, as well as in pregnancy and labor, is of the utmost moment in this class of cases.

3. Operations upon the pelvic floor or vaginal walls, while indispensable in their place, cannot be relied upon alone to cure all herniæ of the pelvic viscera.

4. The ideal treatment is to befound in the combination of operations for repair, and those for accessory support from above, and these may all be accomplished at the same sitting, saving the delay and annoyance of repeated operations.

Dr. William Humiston, of Cleveland, O., read a paper on

COCAINE, ITS USES IN GYNECOLOGY.

He has had 5 years experience in the use of cocaine in gynecological operations, and he does the following operations with no other anæsthetic than it: Dilating, curetting, trachellorraphy, anterior and posterior colporraphy, and perineorrhaphy, frequently making two of these operations at one sitting. In dilating and curetting primipara he resorts to cocaine in preference to chloroform or ether. The pain produced is but slight, and the convalescence is uninterrupted and rapid. It is essential that a reliable preparation of cocaine be used, and he relies upon Squibb's or Merck's. He prepares them in two strengths—a four and ten per cent. solution; the former for hypodermic use, and the latter for intra-uterine injections preceding curetting. He prepares but small quantities at a time, only one drachm of each strength made from sterilized water, to which is added one drop of pure carbolic acid to prevent the solution changing or depositing flaky particles. The quantity of cocaine used for each sitting is from $\frac{3}{4}$ to 2 grains; where but one operation is done he uses from one-half to one grain. In colporrhaphy he injects a 4 per cent. solution in a circle surrounding the portion of mucous membrane to be removed, and this anæsthetizes the whole portion, and denundation can be done with but little bleeding and no pain. The author then briefly reported a few cases in which he had used cocaine with great satisfaction.

Dr. Joseph Hoffman, of Philadelphia, read a paper on

ECTOPIC PREGNANCY, ITS COMPARATIVE SYMPTOMATOLOGY AND TREATMENT.

He said that gynecologists were widely at variance in reference to their expressed views relative to the diagnosis of ectopic gestation. So far as diagnosis was concerned, the term may be almost used synonymously with symptomatology, for upon the latter the former must depend, so that when we find a writer holding that there is a positive chain of symptoms, in connection with which a physical examination will or will not point to the presence of ectopic pregnancy, we will find that he will also claim his ability to diagnosticate the existence of the condition. The misfortune was that those who most widely argue the possibility of exact diagnosis had had the least, and in most cases the most meagre, abdominal ezperience.

In the treatment, Dr. Hoffman enunciated his belief by quoting the words of Stephen Rogers, who said: "*The peritoneal cavity must be opened*; *the bleeding vessels must be ligated.* He indeed must be a madman who under such circumstances would neglect everything in his power to secure the chances such an operation would afford of saving the life of his patient."

Dr. A. H. Cordier, of Kansas City, read a paper entitled

EXTRA-UTERINE PREGNANCY,

in which he said that while his experience in extra-uterine pregnancy had not been an extensive one, it had been characterized by a multiplicity in number, considering the length of time since he saw his first case. In two years in his own practice and in that of others in which he had assisted in the operation, he had an experience of 16 cases. The duration of pregnancy had extended over as wide a range as the location of the fetus had in variety; from six weeks to two years, from a soft gelatinous embryo to a well formed 9 pound child,

from a cob-nut sized embryo in the tube to a full grown child in the broad ligament. It was only in the tube ectopic gestation took place, and all other varieties were only made so by rupture of the tube as the fœtus develops; tubal abortion (?) being the exception, it may be excluded from the list with safety. It was evident that all cases of tubal pregnancy ruptured at some period, unless the growth of the fetus was stopped by some means, but the methods advocated to check the growth of the embryo were so uncertain in their results, so unsurgical and so dangerous to the mother, and the diagnosis so doubtful prior to rupture, that they are to be practically excluded from the management of these cases. Intra-peritoneal is to extra-peritoneal rupture in the proportion of three to one. When rupture takes place between the layers of the broad ligament, the hemorrhage is limited by the resistance offered by the surrounding structures, death rarely occurring to the patient from the first rupture.

Dr. Cordier then reported an interesting case, intra-ligamentous, the child full-grown, and retained nearly two years. The operation was done by himself, assisted by Dr. Griffith.

Dr. Llewellyn Eliot, of Washington, D. C., read a paper entitled

THE ACCOUCHEMENT FORCE IN CERTAIN OBSTETRICAL COMPLICATIONS.

He defined accouchement forcé as a labor actively begun and terminated by artificial aid either through dilators, tampons, Barne's bags or the fingers. He urged as his opinion the superiority of the fingers over all mechanical devices in use, as well as the most harmless. This mode of practice is indicated in cases of uremic convulsions either threatening or in existence, rigid os, placenta previa, uterine inertia and other conditions requiring artificial aid. He deplored the fact that text-books and journal articles on obstetrics were silent upon this old method and quoted, Charpentier, Winckel and Lusk as being opposed to it. He denied the method would be attended by untoward effects—post-partum hemorrhage, laceration of the cervix, uterine inertia—more frequently than by other means. He recited the history of four cases where the method had been employed by him, two of uremic poisoning with threatening convulsions, one of placenta previa, and one of rigid os, all of which terminated favorably.

Dr. George H. Rohé, of Cantonsville, Md., read a paper entitled

LACTATIONAL INSANITY.

He said that recent careful study of insanity during the lying-in period had shown its frequent dependence upon septic puerperal processes. Certain observations of his own presented to the section at the last annual meeting might, he thought, be regarded as comfirmatory of this view. In studying the causes of insanity during the period of lactation, not sufficient discrimination had hitherto been exercised by writers on the subject, although Gooch, as early as 1829 called attention to the necessity of such discrimination. Even in cases where the psychical symptoms of the attack are carefully recorded, too little attention has been paid, in the author's opinion, to the bodily condition. Of course, such marked characteristics as anemia, or unusual emaciation could not fail to be noted by the most superficial observers, but the cases where a careful and thorough examination of the condition of the bodily organs has been made are rare. In insanity, the psychical phenomena are generally so striking as to over-shadow bodily anomalies and thus these fail of notice. Among the most recent authorities, however, Dr. Bevan Lewis regards the exhaustion and sequelæ of labor and defective uterine involution as important etiological factors, especially in the earlier cases of lactational insanity. Levinstein-Schlegel also lays stress upon local diseases and displacements of the pelvic organs as causes. This author says "That the local (pelvic) irritations acting upon the central organ (brain) are active both as determining the duration as well as the course of the mental disorder." Dr. Rohé then reported five cases of insanity, beginning during the nursing period, which had been admitted to the Maryland Hospital for the Insane in the last two years. They formed 7.4 per cent. of the total number of women admitted during this period. The cases were classed clinically as melancholia 2, mania 1, and confusional insanity 2.

Dr. Rohé closed by saying that the treatment of lactational insanity resolves itself simply into the exercise of therapeutics.

Remove sources of irritation, correct aberrant functions, restore wasted strength. These principles, if consistently carried out, will usually lead to success.

THE ABUSE OF EMMET'S OPERATION FOR LACERATION OF THE CERVIX.

Dr. E. C. Dudley, of chicago, read a paper on this subject, in which he said the most common faults in the execution of trachelorrhaphy may be indicted as follows. The operation may fail or do no harm:

1. Because the operator has disregarded the presence of granular endometritis.

2. Because the os externum has been closed so tightly as to obstruct the free out-flow of uterine secretions and menstrual fluid.

3. Because the cicatricial plugs in the angles of the laceration have not been removed.

4. Because cervical glands have been rolled into the cervical canal where they find expression either in the form of cervical catarrh, or of retention cysts.

Dr. Dudley said, in closing, that the evil results consequent upon the abuse of Emmet's operation were frequently encountered, and a large part of the most necessary work in connection with this operation at the present time consisted of conservative surgical procedures, the object of which was to undo work which had already been done. If the abuse of the operation has done much harm, the misguided practitioner must bear the burden of his own fault, the operation must not be made to do so for him.

FOURTH DAY—MORNING SESSION.

Dr. Carey K. Fleming, of Denver, Colo., read a paper on

THE MANAGEMENT OF PATIENTS AFTER CELIOTOMY.

He said the first symptoms requiring our attention, after the patient had been placed in a warm bed, and recovered from the anesthetic, were nausea and vomiting. Thirst, a condition which annoys the patient as much as nausea, was controlled somewhat by leaving the abdomen well filled with warm or hot sterilized water. This is rapidly absorbed by the peritoneum, quenching the thirst to a considerable degree. Warm water per rectum acts often in the same way. In cases where he is unable to control the patient's pain otherwise, he is in the habit of giving 15 or 20 drops of the deodorized tincture of opium, per rectum, as often as is required. The use of laxatives may be commenced as early as the second day and certainly not later than the third day after the operation, and continued until peristalsis is re-established. For this purpose it was his custom to give small doses of calomel, in powders of one-tenth grain each, every hour until the desired effect was obtained. The author then dwelt upon the prevention of colic or abdominal distension after celiotomy, the indications for reopening the wound, and diet.

The following officers were elected for the ensuing year:

Chairman, Dr. Joseph Eastman, Indianapolis, Ind.

Secretary, Dr. George I. McKelway, Philadelphia, Penna.

AMERICAN SURGICAL ASSOCIATION.*

The meeting of the American Surgical Association occurred in Buffalo, May 30, to June 1, inclusive. The first session opened with an addressing of welcome by Prof. Matthew D. Mann, Dean of the Medical Department of the University of Buffalo. Dr. Mann alluded to the attractions of Buffalo as a city and to its recent but increasing influence as a medical center. He referred with pardonable pride to the well-equipped college building into which teachers and students of the University had moved for the latter part of the session just ended, and whose Alumni Hall afforded a convenient amphitheatre for the sessions of the Association.

Dr. Nicholas Senn, of Milwaukee, thanked the Association for the honor of election as president, conferred upon him in his absence from the last meeting. He wished, however, to offer, instead of the typical address, a paper.

Dr. Senn's address was notable for the fact that in spite of a rather agreeable foreign

*Special correspondence to THE MEDICAL AND SURGICAL REPORTER.

accent, his sentences were idiomatically and elegantly worded, even when he spoke without notes. The following quotation contains in brief the substance of his paper. "No systematic effort has been made to utilize the wound in compound fractures to facilitate the union of bone. . . . . The time is at hand when a compound fracture should be treated along the same lines as wounds of soft parts, namely by holding the separated parts together by temporary means directly applied." Delayed union, non-union, paralysis, impairment of general health, shortening, angular deformity, exuberant callus and permanent injury to adjacent joints were mentioned as some of the untoward consequences of fracture which he hoped to remedy by his method. The oldest method of accomplishing direct fixation of a compound fracture was by suture. Various kinds of material, absorbable and non-absorbable have been used for sutures, and the discovery that small foreign bodies, if aseptic, were encapsulated led to the plan of leaving silver wire sutures in place, turning the ends in. These sutures were defective, however, in that they could not prevent motion except in one or two directions. Moreover, in oblique fractures with a marked tendency toward shortening, the tendency of the suture might cause serious interference with nutrition and thus prevent union of bone. Dr. Roswell Park had lately demonstrated the applicability of silk-worm gut suture as a substitute for silver wire. Bone ligatures, the steel screws of Langenbeck and the iron spikes of Dieffenbach, the use of solid ivory cylinders in the medullary cavity by Volkmann, Heine, and Viertner, and other devices were discussed. Experiments with ivory and bone had shown that small pieces only were absorbed and that pieces placed just outside the lining bone or within its medullary cavity, were absorbed much more quickly than pegs driven into the shaft. For these reasons, Dr. Senn was led to believe that a thin, perforated bone cylinder used as an intra-osseous splint or as a supporting external ring would be preferable to the older devices. In a very oblique fracture where local measures were most needed, the intra-osseous plug was of little service, whereas the encircling cylinder would hold the fragments together. The tendency to override each other would only hold them the tighter in the grasp of the ring, the perforations would allow ample opportunity for the outgrowth of granulations and the thin bone ring would be absorbed. Dr. Senn uses sections of the femur and tibia of an ox as "*ferrules*" in the treatment of fractures of the corresponding human bones. A sixth of an inch or less is the proper thickness and if it is more than half an-inch long, it should be perforated like a drainage tube. After controlling hemorrhage, the ferrule having previously been applied the, wound should be closed, layer by layer with buried sutures and a plaster-of-Paris bandage applied over the antiseptic dressing. If the wound requires drainage, the external splint should be so applied as to allow access to the wound without removal of the splint. In aseptic wounds, the ferrule is absorbed, in septic wounds it should be removed after union has occurred. Removal is facilitated by enlarging the sinus and cutting the ring in halves.

The discussion was opened by Dr. Roswell Park, of Buffalo, who approved of the general conclusions of Dr. Senn. As a rule, he preferred to dovetail ununited fragments together and bind them by ligatures of chromicised cat-gut rather than to use the bone suture. In the method by suture, the main difficulty was in passing the suture through the drill-hole. It was much easier to wrap the ligature around the bone with the aid of an aneurism needle. He was afraid of using ivory in these cases. He thought that in some instances the manipulation necessary to apply the bone rings might disturb the soft parts sufficiently to cut off nutrition of the bone and thus cause necrosis.

Dr. Dennis, of New York, said that the question of sepsis in the treatment of ununited fractures could be entirely eliminated. Some years ago the mortality in Pennsylvania Hospital was 68 per cent., which was considered excellent. Antiseptic surgery had brought it down to 2 or 3 per cent.. In 1890, Dr. Dennis reported 1,000 cases seen in metropolitan hospitals, with one death. He believed that the choice of the method was unimportant so long as the wound was kept aseptic. His favorite method was to use the Brainard drill and drive in little ivory pegs. He

had never failed, although, in some cases, a second or third attempt was necessary. In oblique fractures—as well as in simple fractures of the tibia and especially in communited fractures—he thought that a tenotomy would secure physiological rest, add to the patient's comfort and facilitate union.

Prof. DeForrest Willard, of Philadelphia, had used the bone suture of silver or silk-worm gut almost as a routine treatment of compound fracture. Like Dr. Park, he had found the drilling of the bone easy compared with the passage of the suture. He had, therefore, devised a drill with an eye near the point so that the suture was carried through with the drill and protected by a groove. He agreed with Dr. Senn as to the difficulty of having ivory absorbed. He had seen Gluck's experiments with solid cylinders of ivory, and, with one exception, all had been pushed out or discharged through a sinus. The one successful result occurred in a case in which a small piece of ivory had been used in place of a metacarpal bone, and, as Dr. Senn had noted, the tissues could dispose of small ivory pieces. In all fractures, he believed the main element was absolute fixation, which, as a general rule, was best accomplished by plaster-of-Paris. The plaster dressing should never lie like a loose shell around the limb, but should be split open and tightened. Some, however, in springing the cast off, disturb the fracture. It is better to take off a cover from the front of the cast. He had noticed that plaster-of-Paris seems to prevent decomposition, since the blood-stained casts have no odor.

Dr. Tiffany thought that most cases of comminuted fracture would unite with external fixation and said that he could not see how the bone rings would be applicable if there were more that two fragments.

Drs. Richardson and Warren mentioned a case at the Massachusetts General Hospital of ununited fracture on which they had operated several times without success. The patient was five feet, eight inches high and weighed 300 pounds, while his general health was not good. The long cortex was very thin and the medulla fatty. Both thought that Dr. Senn's rings might have been useful in this case.

Dr. Senn in the summing up, explained that he would not urge his new method except in cases where mechanical prevention of displacement was necessary at the seat of fracture. In the application of bone sutures, it is necessary to bring the bones out into the wound, in the use of the rings the ferules are brought down to the bone fragments and it is not necessary to interfere much with the position of the bones. The main virtue of the treatment is the coaplation of periosteum to periosteum, bone to bone, medulla to medulla, utilizing the wound already existing.

In the absence of Dr. W. T. Briggs, of Nashville, who was to have presented a paper on "Pneumotomy for Removal of a Horse-shoe Nail from the Right Lung of a Child," the Association passed into executive session.

The afternoon session opened with a paper on "Hypertrophies and Degenerations of Cicatrices and Cicatrical Tissue," by Dr. J. Collins Warren, of Boston. Although the paper was of much wider scope, the discussion turned largely on keloid, which had occupied a good share of Dr. Warren's attention. Speaking of the terms, false and true keloid, and the question as to whether the difference was an essential one, he said that it was highly probable that the keloid does develop from a minute scar and is, therefore, not spontaneous. Still, he thought the difference was a clinical one, resting on microscopical evidence. Both consist mainly of connective tissue fibres running parallel to the surface, but in false keloid the preëxistence of a scar is indicated by the thin superficial layer of epithelium with felt-like cicatrical tissue beneath, whereas, true keloid is covered by a nearly normal epithelium with papillæ of the cornium beneath. In only one case of true keloid had he found the papillæ wanting and, in it, the tumor was of large size and was located where the papillæ were not normally conspicuous. He suggested several means of preventing the excessive formation of cicatrical tissue—buried sutures should be of animal tissue rather than silk, very superficial stitches should be more frequently employed, exuberant granulations should be destroyed with caustic or by scraping, the regenerative power of the skin should be recognized. The latter suggestion applied particularly

to the avoidance of disfiguring scars on the face and involved Lassar's method of scraping the thin epithelial covering to to the edge of the ulcer so that the true skin should encroach as far as possible.

Dr. Fowler, in the discussion, referred to the fact that a keloid at first resembles a sarcoma, later a fibroma. He mentioned three cases of amputation of the breast for carcinoma in which the scar was twice excised under the belief that it was cancerous, but miscropic examination showed only keloid. The patients, however, died later of malignant disease of the internal organs.

Dr. Tiffany said that keloid was quite common in the south, especially among negroes. It was rare, however, in negroes before the age of ten and after middle life. Retrogressive changes usually began about the age of forty in the negro and in white people there is rarely enlargement after the twenty-fifth year. He, therefore, advised against operation.

Dr. Warren in closing brought out the opinion that the contraction of the cicatrix was not due to an inherent property of scar tissue but to the absorption of part of the mass. In support of this view he instanced the yielding of scar tissue before the pressure of a hernia. Dr. Warren passed around some illustrations of cases and of microscopical appearances. He had noticed in keloids taken from negroes that there was a considerable admixture of fusiform cells which appeared to be smooth muscle fibres. Was there any connection between this fact and the frequent occurrence of uterine leiomyomata in the colored race?

Dr. M. H. Richardson, of Boston, read a long and interesting paper on surgery of the gall-bladder, embodying his own experience. Most gall-bladers demanding operation are large, a fortunate circumstance, since one of normal size is difficult to operate upon. Dilatation of the gall-bladder may result in a large cyst, filling the whole right side of the abdomen. In such cases, the cystic duct is usually closed and the biliary pigment may have been absorbed, leaving a colorless fluid. In the abscence of pain and constitutional disturbances, there is no indication for operation. It is justifiable to remove calculi as soon as they are diagnosed unless serious organic, especially malignant, disease exists. Cholæmia with much pain, and in the abscence of organic disease of the liver, demands operation unless the attacks of colic are short. But it is comparatively safe and easy to remove a stone from the gall-bladder, difficult to remove the same stone after it has become lodged in the common duct. Various diagnostic points were considered by Dr. Richardson who emphasized the difficulty of exact diagnosis by the statement that in six of his twenty cases, malignant disease was found instead of the expected calculi. He illustrated, by black-board sketches, the exact typographical anatomy of the gall-bladder, the ducts and vessels. His incision is made outside the rectus muscle in the triangular space between the rectus, the free border of the ribs and the external oblique muscle. The external wound is an inch and a half long, the opening through the transversalis fascia only half an inch. Dr. Richardson laid great stress on the value of dry dissection and said that the loose areolar tissue allowed the vessels and ducts to be quite easily separated. "Unless you can see what you are doing, never cut." When the gall bladder is contracted and friable, an escape of bile into the peritoneum is practically inevitable. In such cases Dr. Richardson has inserted a drainage tube into the cystic duct, wrapping gauze around it to protect the peritoneum. Sepsis has not resulted. Cholecystectomy should not be attempted unless the gall bladder can be dissected from surrounding structures. Even then there is apt to be an excessive outflow of bile as soon as the ligature becomes absorbed and the drainage tube affords protection against this accident. As soon as the fistula has become established between the remains of the cystic duct and the outside, the parts close in rapidly from all sides and "the bladder is no longer a receptacle for bile or a quarry for stone." The cystic duct cannot be catheterised nor dilated from the gall bladder. A soft stone lodged in it may be crushed. If a duct is incised, it may be closed with fine sutures but even then there is apt to be an escape of bile.

Dr. A. Vanderveer led the discussion. He spoke of a temperature curve similar to that of intermittent fever as somewhat diagnostic of gall stones. His attention had been called to this symptom in a case in which there was a tumor in the right side of the abdomen reaching down to the inguinal region. The tumor was thought

to be a floating kidney put proved to be an enlarged gall bladder. The gall stone was lodged in the cystic duct so firmly that it could not be extracted. It was, however, crushed and the fragments were pushed on into the duodenum, when intestinal gas issued, showing that the passage was free. He agreed with Dr. Richardson as to the location of the outer wound. He had seen an operation commenced with the median incision and abandoned because the gall bladder could not be found. Later, it was learned that the gall bladder was contracted and firmly bound to the under surface of the liver by adhesions. He also agreed with Dr. Richardson that the ideal cholecystotomy, that is the suture and return of the bladder after removal of the calculi, was somewhat dangerous. But he thought it preferable to ligate the cystic duct and leave the withered gall bladder in place, thus practically accomplishing cholecystectomy without removing the gall bladder.

Dr. W. H. Carmalt spoke of a case in which he operated for what was supposed to be floating right kidney, there being the history that an eminent German surgeon had sewed the same kidney in place and that the trouble had returned. The tumor proved to be a gall bladder distended with calculi. The stones were removed, the bladder sutured continuously with cat-gut, returned to the abdomen and the wound closed. The patient recovered completely and died three years after of another trouble. At the autopsy the left kidney was found in the pelvis. It had two arteries and two ureters. Dr. Carmalt had intended, before removing the supposed floating kidney, to search for the left kidney which evidently would not have been found.

Dr. Theodore A. McGrar described his experiments in making anastomoses in animals and showed some very interesting specimens. He had found that linear communications soon closed on account of the cicatrical contractions, while end to end junctions remained patulous even if the edges of mucous membrane were not in exact apposition. The idea therefore occurred to him of making an H shaped or triangular incision in the gall bladder, dissecting up the flaps, turning back a similar flap of duodenal wall, uniting peritoneal surfaces by silk-worm gut while the mucous and submucous layers of the gall bladder made a nipple-like projection into the bowel. He thus hoped to imitate the natural papilla at the opening of the common bile-duct. He had found that the papilla did not persist but that the opening remained permanently.

Some other discussion followed, which, with the summing up of Dr. Richardson, had to do mainly with the question of drainage, especially the value of the gauze packing about the rubber tube.

Medical Practice in Germany.

(*a*) Medical practitioners have no special rights any more than in England. Unqualified men are even eligible as club doctors under the term Natur Aerzte, or nature doctors, and many such hold these appointments. They only must not call themselves "Approbirte Aerzte" or assume any title implying that they are "approbirt" or legally qualified.

(*b*) There is no punishment for irregular practitioners so long as they do not pass themselves off as legally qualified, the punishment for such an offence would be by fine or imprisonment or both.

(*c*) Prescribing by chemists is illegal and offences of this kind would be punishable by fine or possibly loss of licence which every chemist has to take out.

(*d*) The same with regard to dispensing by doctors it is illegal except in the case of "homœopathic" physicians. A special law was recently passed giving them permission to dispense on the ground, I suppose, that as their so-called drugs were practically non-existent, the dispensing of them could hardly come under the term dispensing as understood in law.

(*e*) The sale of poisons is regulated as in this country, but on the whole more rigidly.

(*f*) Patent medicines are not recognized by law nor allowed. If a secret remedy is advertised the public analyst analyses it and publishes the analysis in the public papers, at the same time, stating the retail price of the various ingredients and the whole when put together. This cuts the ground from under the vender's feet. — *Med. Press and Circular.*

A typewriter for the blind has been invented, with printed embossed characters.

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SATURDAY, JUNE 17TH, 1893.

EDITORIAL.

"THE ITCHING PALM."

The MEDICAL AND SURGICAL REPORTER makes no pretense to formulate or dictate policies for medical schools or other institutions, but it offers no apology for freely commenting upon and criticising such policies when the interests of the profession at large, or that portion of it more immediately and locally concerned, are involved.

Some facts are so thoroughly established as to need no demonstration. With especial reference to medical schools a few of these facts may be stated as follows:

The reputation of a medical school is made, sustained and directly dependent upon the reputation and work of its corps of instructors.

The greatness of a medical school is in direct proportion to the fame and ability of its teachers.

The greater the reputation of a medical school the greater is its obligation to sustain its good name, and for no consideration should it permit of a deterioration in the character of the staff on which its fame rests.

The fame of a medical school is conferred upon it by the great men connected with it, and mere connection with a medcal school, however great, will not make an inferior man famous.

More brain and less money will accomplish greater results than will more money and less brain.

The responsibilities of a medical school are not fully met by satisfying the petty personal or political ambition of individuals whose existence is known only within the narrow confines of the social relations of the 'powers that be.' Its obligations are its alumni, to the entire profession, to the community in which it is located and which gives it generous support, and more or less directly to the public.

Whether or not ability receives full compensation for its services, in this day

keen competition between medical schools brains are at a premium. The higher the quality of ability the greater is the cost of its service, and its value bears a direct proportion to its cost. Services that cost nothing are worth just exactly what they cost; but when it comes to selling a chance to serve, the value of the service rendered will be in an inverse proportion to the premium demanded.

In the course of nature vacancies must occur and changes must be made. To give opportunity for development to the younger men of obvious "promise" is a wise policy. Wise, if achievement has given earnest to the "promise." Foolish unless the promises assure credit rather than cash, pregnant with brain rather than boodle, and secure the command of intellect rather than of influence. Promises that are at least partially fulfilled by demonstrations of personal power and not of political "pull." But this plea is specious when used by a great school as an excuse for putting into a responsible position an utterly untried individual. A school has no right to make experiments in positions of great trust when it has abundant facilities to test material in minor positions, and to amply determine the fitness of aspiring buds of promise. Even then the qualities must be most marked to justify, for the sake of economy, passing over men who have already achieved greatness.

It is always easier to destroy than it is to build up, and the school that undertakes to sell its offices to the highest bidder is in a fair way to speedily realize this fact.

Until comparatively recent years Philadelphia has been recognized as the great medical centre of America. It is no longer pre-eminent beyond dispute. Other great cities are losing no opportunity to strengthen their institutions, and, in the sharp competition of this age and country, one or two of these cities have come to equal, and in some respects even surpass, medical Philadelphia. This has not been brought about by any deterioration in the quality or ability of the local profession, nor in the superior opportunities and advantages which Philadelphia possesses, but rather by a lack of concerted effort on the part of Philadelphia practitioners to assert themselves, by allowing the management of medical affairs to drift into the hands of a few, and, perhaps, by allowing personal considerations too much prominence in scientific matters. If, in addition to this state of affairs, our great schools adopt policies that threaten their pre-eminence it will not be many years before Philadelphia will have lost all claim to her former greatness.

An uneasy desire to augment resources, even at the risk of diminishing effectiveness, seems to have seized upon some of our greater medical schools, and to have blinded their managers to the perils of "dealing in futures."

It may be brilliant diplomacy to bring about as an apparent chain of coincidences the securing of an enormous appropriation from the public treasury; an affiliation which is an absorption of an institution of special purpose, practically paid for and supported by a confiding commonwealth but controlled absolutely by private individuals, and this, too, with at least two more years of state support out of all proportion to its deserts as shown by the work performed; to materially brighten the prospects of endowment; to recognize the arduous toil of a famous teacher, and accord him the pleasure of meeting, while yet in the prime of life, with the reward of his years of service by pasting on the honorary label of "emeritus," and transferring him from the field of his active work to the shelf where repose other relics of former greatness; and finally fill the chair thus made

vacant with a—possibility so thoroughly disguised that hitherto it has not even excited suspicion.

This may be rare diplomacy but it is likely to prove as unprofitable a policy as was that of the scriptural character who parted with his birthright for a mess of pottage. Even a rusty old screw adds more strength to a shaky chair than a two ounce tack, however brightly tinned. The tack however may be of use in re-upholstering the chair.

BACTERIOLOGICAL NOTES.

The Distribution of Lepra Bacilli in the Body.

Delepine and Slater (*British Jour. of Derm.*, Jan., 1893) give the results of a careful bacteriological examination of the tissues in cases of leprosy. All of their attempts to discover the bacilli in the lymph, blood or pus during the life of the patients proved negative. They are of the opinion that there is no means of differentiating the tubercle and leprosy bacilli by staining processes. The post mortem examinations revealed the presence of the leprosy bacilli in the skin (uniformly), in the mucous membranes of the mouth, pharynx, and larynx in certain nerves and special lymphatic glands, in the liver and in the bones. They were not found in the kidneys, supra-renal glands, thyroids and the mucosa of the stomach, small intestines and bladder.

They appeared in greatest numbers in the areolar connective tissue, and in the lyphatic glands.

Staphylococci Purulenta Cutanea.

Wickhaur (*British Jour. of Derm.*, July, 1892) has given the name of staphylococci purulenta cutanea to the bacteria which are the cause of certain skin diseases in which there is the formation of pus. The disease presents itself under such titles as furuncle, certain folliculitides and impetigo, according to the predominence of certain of its morbid elements. He believes, furthermore, that the large number of suppurative affections, whose specific cause is not yet determined, will eventually be placed among those caused by staphylococci. Attention is called to the fact, which bacteriological investigations have demonstrated, viz., that suppuration may be produced by many totally different causes. (1) Certain chemical substances free of bacteria, and, (2) by a very large number of different bacteria, including not only the generally recognized pyogenic forms but certain other well established pathogenic species such as the tubercle bacilli and the bacillus of authrax.

Thorner's Method for Selecting Tubercle Bacilli in Milk.

This consists of the following process: "20 cc. of the suspected milk are mixed with 1 cc. of a 50 per cent. potash solution and heated in a bath of boiling water until the fat is saponified, when the solution turns a yellowish brown. By this process the caseine and albumin become soluble in acid. Add 20 cc. of acetic acid, shake the solution, heat on water bath for three minutes, transfer it to a strong glass tube and turn in a centrefugal machine for 10 minutes. The liquid is then poured off and the sediment is washed by shaking it with 30 cc. of hot water and again centrifulized. The water is then poured off and the sediment placed on cover-glasses which are treated in the ordinary way of staining cover-glass preparations for tubercle bacilli."

Rhopalocephalus Carcinomatosus (New Genera and Species.)

Korotneff (*Centralblatt f. Bakteriologie n. Parasitenkunde*, XIII, 1893, p. 373) describes a new species of a parasite which he has found in cancerous tissue from the labia, mammary glands, etc. The adult form has a quite thick elongated body to which he has given the name *rhopalocephalus carcinomatosus*. In general the form resembles that of a cistodi. In the head a nuclear body is visible. The organism is represented as being from 3 to 4 times the length of

the diameter of the tissue (cancerous) cells. The outlines of the body are clearly defined. It forms no pseudopodia. Korotneff describes very carefully the development of this new parasite from its first appearance to its complete development. The relation which exists between it and the cancer is, of course, the most important consideration. The author thinks that the parasite is not the cause of the multiplication of the cells in the, cancer as the cancer grows in places, *i. e.*, in different directions or parts, where no parasites can be found.

The Germicidal Property of Light.

That sunlight has a more or less powerful effect upon bacteria has been known for some years. *Butchner and Minch* have systematically investigated the influence of light upon bacteria floating in water. The more important bacilli with which they worked are the bacilli of typhoid fever and cholera, although many other species were tested. The author's found, by way of experiment, that water containing 10,000 germs to the cubic centimeter became sterile, *i. e.*, freed from these living bacteria, after an exposure for a single hour to the direct rays of the sun. In another experiment similarly infected water was kept in the dark when it was found that a slight multiplication of the bacteria had actually taken place. Diffused daylight (not direct sunlight) had a marked destructive power on the bacteria after an exposure for several hours.

From these results the authors are led to the conclusion that the purification of natural water is chiefly accomplished through the influence of the sun's rays. The practical suggestion, based upon the above results, is that sewage should be exposed to sunlight before being poured into rivers or other water courses. In the exposure it should be placed in shallow basins lined with white cement. [Although the results obtained by the action of sunlight cannot be disputed, it seems reasonable to suppose, in the light of other experiments, that certain pathogenic bacteria are rapidly destroyed in water when not exposed to sunlight. The typhoid and cholera bacilli, however, are capable of living in water for a very considerable time and if the authors were able to destroying them by sunlight in so short a time as given, a truly beneficial discovery has been made.—Ed.]

TRANSLATIONS.

GASTRO-INTESTINAL ATONY.†

Cuffer (*Le Bull. Méd.*, March 8, 1893), gives some general considerations on this subject and emphasizes its great clinical importance. Atony, according to Litré and Robin, is a defect of tone, weakness of a contractile organ. It expresses a state of relaxation of the tissues. For a long time it was confounded with paralysis, and still this mistake is daily committed. There is, however, between these two morbid states a very sensible difference, of which it is important to take notice. Atony is a paresis, inertia, failure of activity of an organ, but with persistence of its function. The functionation is diminished but not lost. Paralysis, on the contrary, implies the abolition of movement, the loss of function. When a muscular group is struck with paralysis it is necessary to admit an affection either of the nerve-center or of the nerves; in short, an interruption of the communication between the muscular group and its motor-center, or a suppression of the action of their center. On the contrary, when a muscle is simply atonic the nerve-centers and the peripheral nerves are intact; the muscle itself is not sensibly altered in its structure.

In order that a muscle should contract naturally and possess the normal tone, several conditions should be realized; first the integrity of the structure of the muscular fibers, then the integrity of innervation, of the circulation, arterial, venous, and lymphatic, and of the blood itself;

†Translated for The Medical and Surgical Reporter, by W. A. N. Dorland, M. D.

finally, a normal state of the tissues adjacent to the muscular fibers. Such are the conditions that assure to a muscle its contractibility and its normal elasticity, that is to say, the two qualities which characterize the muscular tonus. The first, the most directly appreciable, is an active property of muscle, thanks to which it produces a useful work. The second is that passive property, in virtue of which a muscle momentarily distended resumes its primary form. Although less visible than the first, it is not less important. It is this property, in fact, which permits antagonistic muscles to act with the desired force and precision. For the proper functionating of a muscle, as has been said, certain conditions must be present.

1. It is necessary that the tonus should be normal, that the muscular tissue should be intact. Let us recall the myositis of typhoid fever or of variola. Following these infectious maladies, it is not rare to observe a pronounced feebleness of the muscles of the body. The appearance may even be that of paralysis, incorrectly. The muscular fiber is slightly degenerated, that is all. The muscles have been badly nourished, but they rapidly recover their functionating under a purely tonic treatment, while in a case of a true paralysis, considerably more time is required for them to regain their activity. The muscles in the convalescence of infectious diseases are therefore simply in a state of asthenia (amyo stheni); it is the atony of the first rank. Bat there is more; degeneration of a muscle is not necessary to cause atony. It suffices to produce the same result to submit the muscles for a long time to a maximum of elongation; this is a strained muscle, as a rubber band may be overdistended. It has lost its tonicity. As an example let me cite the uterus in the puerperal state. What is it that causes uterine inertia consecutive to labor? It is nothing else than the result of the overdistension to which it was submitted, as in a twin pregnancy, an hydramnios, or any other cause acting in the same way. It is for an analogous reason that the abdominal wall presents habitually in multiparæ the peculiar flacidity that is well-known.

A second condition no less necessary to the proper functionating of a muscle consists in the integrity of the arterial circulation, or, in other words, in a sufficient blood supply. If, in a given moment, this condition is not realized, the muscle becomes atonic. As one has said, "a muscle deprived of blood falls into paralysis." The term is not exact; it is not a paralysis, it is only a loss of vitality of the muscle; a paresis, if you wish.

3. It is not only necessary that the blood arrive in normal quantity; it is necessary also that the exchange continue to be made, that the effete products of muscular action be removed by the effesent vessels. When the return circulation is hindered, fatal muscular atony ensues. In practice, the most frequent and the most typical cause of hindrance in the venous circulation is a mitral affection which has reacted on the right heart. The compensation cannot be maintained and a general venous stasis is produced. Another type of atony of venous origin is furnished by the varices.

4. The blood may be furnished and removed in sufficient quantity, but it is yet necessary that it be of normal composition. Muscular tonus will not exist in the absence of oxygen, since it is the combustion of the gas that nourishes the muscle and assures in consequence, its functionating. It is the carbon that goes to nourish the machine. In certain poisonings, in particular in poisoning by carbonic acid gas, there is a sort of paralysis of the red corpuscles, as first noticed by Claud Bernard. In consequence, the hemoglobin, on account of its inferior affinity for carbonic acid gas, no longer fixes the oxygen; hence, the muscles become atonic. In certain affections there is at the same time, an insufficiency in the quantity and in the quality of the blood furnished. This is seen in chlorotics affected with aortic stenosis.

5. The normal functionating of a muscle presupposes the integrity of the nervous influx. If the nervous influx is diminished in its intensity, there results a state of muscular semi-impotence, otherwise called atony. The type of atony of this origin is realized in neurasthenia.

Finally the integrity of the neighboring mucous or serous surface is a last condition, as indispensable as the preceding, in order that the muscular activity be maintained in its normal state. Here is placed Stoke's Law, which has been rightly or wrongly interpreted according to the case. In each instance, it is for-

mulated in the following manner: "Every muscle in relationship with an inflamed mucous or serous membrane becomes paralyzed." It is, however, not a paralysis, but an atony. It is seen in the paralysis of certain muscles of the palate in severe angina or in the diaphragm in diaphragmatic pleurisy.

The stomach and intestines may be the seat of an atony, either singly or together, in the three great varieties, as follows: gastric atony, intestinal atony, gastro-intestinal atony. These varieties may offer still more numerous subvarieties. The immediate consequences of this atony are not the only, or even the most important; there follow other distant troubles, the reflex manifestations, cerebral, cardiac, pulmonary, etc. It is, therefore, a complex subject and involves an extensive line of study.

The Relations of Operative Gynecology to Insanity.

In a paper with the above title, read before the American Medical Association, Milwaukee, the author A. H. McFarland M. D., Jacksonville, Ill., comes to the following conclusions:

1. Gynecological operations are more likely than any other surgical procedures to disturb the mind.
2. Hereditary antecedents of the patients should always be determined.
3. In insane patients, operations should be performed only when the physical condition endangers or renders life insupportable.
4. Patients, precedent to the operation, should be in a calm frame of mind —hence, moral treatment of the patient previous to operating is the best prophylaxis.
5. Inherited and acquired insane constitution is the fundamental factor in most cases of insanity. This conclusion does not, however, justify us in ignoring physical diseases, immediately preceding or associated with insanity.
6. Healthy genital organs do not give rise to reflex symptoms, consequently caution should be exercised in operating for the relief of insanity.
7. Operations may be satisfactory in properly selected cases.

Do the Sick Ever Sneeze?

"Do those who are seriously ill ever sneeze?" This is a point alluded to by Mr. Jonathan Hutchinson in the January number of his *Archives*. He does not recollect himself to have seen any but fairly healthy persons sneeze. He puts the question with especial reference to the widely spread popular superstition that sneezing is a sign of health and good luck. It is possible, he thinks, that this may have had its origin in the fact that it is for the most part an act restricted to those in fair health. Tylor, in his "Primitive Culture," gives interesting facts as to the prevalence of this creed and as to certain customs associated with it, and traces it in part to doctrines of animism, but Mr. Hutchinson thinks the suggestion he has given may also have some value.—*Sheffield Medical Journal.*

Pills of Iodide of Potassium.

Here are some prize formulas submitted to the Pharmaceutical Society of Anvers as the best mode of making these pills.

℞
Iodide of potassium..... 0.25
Powdered starch..... 0.5
Simple syrup..... 1.0
For one pill.

Pulverize the iodide of potassium, add the starch in an impalable powder, and add the syrup to make a pillular mass softer than an ordinary mass. One thing to observe is to work up the mass thoroughly; otherwise it does not present the desired cohesion. Roll the pill in starch powder. Take of iodide potassium, the prescribed quantity, dissolve in a small quantity of water, add gum arabic in a sufficient proportion to obtain an ordinary mucilage, add then potter's clay in sufficient quantitity to make a mass which can be easily worked, and immediately roll into pills, for in a shord time the mass becomes hard. The pill can be rolled in potter's clay, or covered after the manner of iodide of iron pills. It is said that these pills keep perfectly without much care; they dissolve rapidly in water and after depositing the potter's clay give a liquid absolutely colorless.

It is better to go to bed hungry once in a while than to get up every morning head over heels in debt.

THE LIBRARY TABLE.

BOOK REVIEWS.

A Handbook of Local Therapeutics, by Allen, Harte, Harlan and VanHarlingen. Edited by Harrison Allen, M. D. Octavo—500 pp. Price $4.00. P. Blakiston, Son & Co., Philadelphia.

The need for a book of this character has long been apparent, for there has been no text available in which the *local action of drugs* was not subordinated to their general actions, while the average text-book omits altogether mention of many agents that in the hands of a specialist become valuable aids to cure.

Diseases which require chiefly local treatment are those of the respiratory passages, eye, ear, and skin, together with certain general surgical affections, including diseases of women; it is therefore to the great advantage of the book that each remedy has been thoroughly set forth by different authors who have had large practical experience in these various branches.

Each remedy has been taken up in alphabetical order, and, after a description of its pharmaceutical properties, is considered in reference to its physiological effect and value in local treatment.

The demands for thorough revision of local medicaments made by the advance of theories of asepsis, have been fully considered, and a succinct account has been presented of the source and properties of the very numerous new agents which affect tissues locally.

Some drugs have been excluded which have been highly praised; on the other hand great care has been taken not to indorse imperfectly attested novelties.

This handbook embodies the results obtained by experienced teachers, and will prove a very valuable work to the general practitioner. Two carefully made indexes make it a book of ready reference.

Deutsche Archive fu. Clin. Med. Edited by Dr. H. Ziemssen and Dr. F. Zenker. Published by F. Vogel, Leipsig.

Contributions to the Pathology of the Heart, by Dr. Hochaus, of Kiel.

I. A case of congenital opening of the ductus botalli, found in a patient, aged 24, who seemed well up to his twelfth year, but after that complained frequently of periodical pain in the region of the heart, accompanied by palpitation.

The patient was admitted to the clinic on February 15, to be treated for chillblains; owing to the above mentioned cardiac symptoms he was sent to the medical clinic on March 15. An examination revealed a systolic murmur at the apex, and insufficiency of the mitral valve, with dilatation of the right heart; the presence of fever and albuminuria pointed chiefly in the direction of an acute endocarditis. The diastolic murmur heard at the second intercostal space and the left intraclavicular region seemed to point to the pulmonary artery as its origin; other symptoms of aneurism being absent.

Another explanation was that the ductus botalli had remained open, causing this diastolic murmur. The patient died of pyæmic endocarditis on the sixth of July.

Post-mortem examination verified the diagnosis. Endocarditis of the pulmonary valves and artery, the open ductus botalli; the arch of the aorta and the mitral valves.

Here follows a detailed account of an accurate study of the heart and other pulmonary and abdominal organs.

The author in looking up literature has found twenty similar cases.

II. A description of two cases in which immediately following a contusion of the thorax. A previous healthy subject suffered from dyspnœa, pain in the back and chest, slow and irregular pulse the undoubted symptoms of myo-carditis.

III. A report of two cases of aggravated tachycardia (200 contractions of the heart to a minute). In the first case it resulted from over-exertion, the attacks were short but repeated themselves at an average of every six months, a very slight dilatation of the heart remained. This was followed secondarily by some emphysema and bronchitis.

The author seems to have believed that it may primarily be due to a paralysis of the vagus nerve or irritation of the sympathetic.

The second case is interesting from a number of attacks under observation thus permitting the noting of the changes of the heart and later the opportunity of a post-mortem examination.

As a therapeutic agent the author found digitalis of value.

Scarlet Fever in The Adult, by Z. Gimmel, of Zurich.

In the years 1881 to 1889 there were 1818 cases of scarlet fever treated by physicians, 15.08 per cent. of these cases were adults, while in the other years, the percentage among adults ranged 7.81 per cent. and 12.09 per cent. It increased in 1888 to 19.91 per cent. and in 1889 to 20.08 per cent. The reason given for this remarkable increase is, that in the last two years greater epidemics existed, while in the former years there was no marked epidemic. As a rule adults became infected in families where children were first taken.

On the whole there seems less disposition among the adults than the children for scarlet fever. Its course is less severe in the adult, nephritis more rare and in a lighter form. On the other hand articular rheumatism is more frequent, and does not lead to grave complications.

A description of three cases in which the infection started from wounds, closes the instructive study.

Clinical Studies of Articular Rheumatism, by Dr. A. Stoll, of Zurich.

The author has made a statistical study of 572 cases of articular rheumatism, acute and chronic, which occurred in the medical clinic of Zurich, between the years 1881 and 1890. The greater number occurred in the third decennium, 48.2 per cent. There are twice as many cases among the males as the females. The cause given is the greater amount of

exposure to cold. Closer study proves that exposure to cold is not of such great moment as a possible infection. He cites that thirty soldiers became attacked in rapid succession in the barracks of Zurich. Careful investigation showed a lack of proper hygienic sanitation. Heredity was found to be the cause of 5.3 per cent.; returns were numerous. The lower extremities were most frequently attacked; as complications we find endo-carditis most frequent. In 9.2 per cent., cardiac diseases were set up; other complications are pleuritis, pneumonia, bronchitis, angina, coryza, epistaxis, nephritis in four cases, purpura rheumatica. Salicylic acid and salicylate of soda in doses of 0.5 to 1.0 were given with good results. They will not shorten the attacks but they lessen the mortality. In cases where the salicylates fail to act, antipyrine was given with good effect. In sub-acute and chronic cases, iodide of potassium, immobilizing the joints, and carbolic acid injections were successful.

Contributions to the knowledge of Pseudo-Leukemia, by Dr. A. Westphal, Leipsic.

The author has collected twenty-one cases from the clinic at Leipsic, which he reports in detail, and, after thoroughly studying them from the clinical as well as the pathologico-anatomical standpoint, he conclues as follows:

First. Pseudo-leukemia is in all probability an infectious disease.

Second. A direct connection with tuberculosis is improbable and could be definitely settled, however, by bacteriological investigations and vaccinations.

Third. In a number of cases there seemed to be local affections, particularly of the aural cavity and its surroundings.

Fourth. It is a rare occurrence to find leukemia end in pernicious anæmia.

CURRENT LITERATURE REVIEWED.

THE MASSACHUSETTS MEDICAL JOURNAL for June. Dr. J. R. H. Jones discusses the subject,

Is Superfetation Possible?

The author quotes the opinions of various observers in regard to this interesting question. He disregards those cases in which there is a possibility of the case being one of twin pregnancy in which the woman has aborted of one twin while the other has gone on to full development.

He draws the sharp distinction that, to constitute *true* superfection, it is necessary that the woman should not only bear *two* children, but their births must take place at different times—the deliveries being separated by an interval of time sufficient to preclude the possibility of their being twins. The children must be of different ages, and while the mother nurses one, she must be pregnant with the other. These conditions he regards as essential to true superfetation.

A double uterus will account for some of the reported cases, but not all. The author also calls attention to the fact that the subject, besides being a matter for speculation, may possibly have important medico-legal bearings. A case in point is where a woman married shortly after the death of her husband; seven months later she gave birth to a child apparently mature, and two months later to another mature child. The question might arise as to whether the first child was the offspring of the first or of the second marriage.

Dr. F. H. Gibby contributes a paper on "The Surgery of Childhood."

Dr. Robert A. Reed contributes a paper on

Daltonism or the Inability to Distinguish Colors.

The term "Daltonism" derives its origin from an English chemist Dalton, who suffered from this chromatic defect and, in 1794, gave to the scientific world its chief knowledge of the subject. The expression color blind, does not mean that one is really blind to colors, that they make no impression on him, but that he sees them another way. The color blind themselves, are divided into classes, as they do not all see colors the same way. The red blind, can no more see as the green blind, than as one of normal vision. What is called the "Young Helmholtz theory of color sense" is the one now adopted. It is in brief as follows: There probably are in the eye three sets of nerve elements for the perception of color. Stimulation of one causes the sensation red; of the second, the sensation of green; of the third, the sensation of violet, the three primary colors. Now if the elements of the first kind are wanting or paralyzed, there can be no perception of red, if of the second, no percep ion of green, of the third, no perception of violet. Accordingly there is red blindness, green blindness, and violet blindness. The last is quite rare.

In testing for color blindness, various methods have been used. It has been found, that it will not do, simply to hold up different colors and ask their names. Knowing the name of a color is a different thing from actually seeing it. The method proved to be the most accurate and simple, is that of Holmgren. Berlin worsted is the material chosen. It is better for several reasons, than bits of colored glass or paper. All the different colors are selected and five shades of each. This pile of worsted is laid on a table in broad day light. One skein is taken from it and laid by itself. The one examined is then asked to select from the pile those matching it, and lay them by the other. One not color blind will pick out quickly all the skeins that are alike, while the others will make the characteristic mistakes. The color chosen as a corresponding one, shows the class of color blindness to which he belongs. One is tested in turn for red, green, and violet, blindness.

If one feigned color blindness, to escape responsibility for a railroad accident, this examination would quickly reveal the deception. To avoid detection, he must be as familiar with the exact laws of the different classes of color blindness, as an experienced specialist, which would hardly be probable. Suppose, for example, the one feigning, understood enough of the subject to know there were different classes of this defect, and assumed red blindness, the most common form, and matched red with green or gray, imitating the ordinary mistakes. With a pure red this would be well enough. But show him magenta, a common red. This is not a pure color, but gets its special shade from an admixture of blue. One, really red blind, does not see the red in it at all, but does see the blue, and that only; hence he matches *this* red, with blue. To match it with green or gray, would reveal a deception at once.

One question of great importance in this subject, relates to the frequency of its occurrence; and the more accurate and scientific the tests, the greater the number of color blind found. After an examination of thousands of cases, in various countries, by different investigators, it has been found, that the proportion of color blind among men, is one in twenty-five, among women, it is very rare indeed.

Color blindness, like other traits, is hereditary, and runs in families. It bears no relation whatever to the color of the eye but is equally common with dark eyes as with light. Again, color blindness has no connection with errors of refraction, so that whether the eye is near-sighted, or the reverse, or has any other departure from the normal type, these defects need not be corrected in testing for color blindness. The eye may be sound and perfect in everything but color. One author reported remarkable visual power, as to the shape of objects, in many of his cases.

It is believed that the sense of distinguishing colors can be weakened or perverted by injuries, some diseases, and the excessive use of tobacco and alcohol. Of cases of acquired color blindness, those of the most interest, and the greatest frequency are caused by tobacco and alcoholic beverages, especially the latter. There is but one remedy—immediate and absolutely total abstinence.

THE AMERICAN GYNECOLOGICAL JOURNAL for March contains a paper by Dr. I. S. Stone on

The Significance of Pyrexia in Surgical Cases.

In his paper the author confines himself exclusively to the consideration of high temperature following abdominal operations. He points out that we may have a severe peritonitis with a temperature below normal and a pulse (which is generally more to be relied upon than the temperature) which may not be greatly accelerated. To the obstetrician, pyrexia is full of meaning. If there be rigors, with pain in the region of the uterus, with quick pulse and temperature anywhere over 100° or 101°, the patient is fortunate who obtains relief when her uterus is carefully cleansed of all septic matter. Observations made upon patients suffering with pelvic abscess often show a decided improvement, so far as pulse and temperature and even pain is concerned, after resting and using free purgation. After an abdominal operation, the patient's pulse, her countenance and voice, her ability to raise and move the abdominal walls in respiration, are all of value in determining the presence or absence of inflammation. If the temperature is not higher than 102° or even 103° on the evening of the third or fourth day after laparotomy, we may fully expect a recovery, if the pulse is of good quality, without reference to its frequency, provided the patient's bowels are open, and the stomach retains liquids. This remark, of course, applies only to completed operations, and does not include forlorn exploratory operations or even hysterectomy. There may be some reason for a temperature of 102° or 103° on the third to the sixth day, which may be easily explained. Very often the abdominal wound is infected in operations for pelvic abscess or dermoid cysts. In these cases we may expect to have suppuration in the wound with stitch-hole abscesses.

Dr. Augustus P. Clarke presents "Some Observations respecting Tubo-ovarian Disease." For the prevention of adhesions after the removal of the appendages, he suggests that the surfaces of the incised parts should be turned towards each other, or should be so coapted by means of aseptic buried sutures that there will not be left any abraided or inflamed tissue that can unite with other parts while union is taking place.

Dr. W. B. Sprague contributes a paper on

Electro-therapeutics in Endometritis.

He has treated, in all, one hundred and fifteen cases, of which forty-six were cured; that is, all the symptoms of endometritis disappeared for a considerable time and have not recurred to his knowledge. Fifty-four were considerably benefited, and eight were not benefited. In all cases of severely lacerated cervix, the disease returned unless the laceration was repaired as soon as all the symptoms were relieved, and a recurring retroversion was also always accompanied by recurrence of the endometritis.

Dr. M. B. Ward discusses the subject of

Peritoneal Irrigation.

Water left in the peritoneal cavity, he thinks, certainly does prevent the formation of early adhesions to some extent. It will also assist the gravitation of the omentum to its proper place in front of the intestines, if it has not been placed there by the operator. The water also helps to relieve the intense thirst that patients suffer from after an abdominal operation. The author also thinks that in some cases, water left in the peritoneal cavity has materially reduced the shock of the operation. He has never seen any harm from peritoneal irrigation.

Dr. Robert T. Morris contributes a clinical lecture on the subjects of Hysterorrhaphy and Appendicitis. Dr. F. Byron Robinson reports an "Operation for Ruptured Ectopic Pregnancy" where the patient's temperature before operation was 106.2°. The patient recovered. The remaining paper in this issue is "The Puerperium" by Dr. Mark A. Rodgers.

THE CHICAGO MEDICAL RECORDER for May is taken up principally with the consideration of the treatment of phthisis. Dr. Robert A. Babcock contributes a paper on

The Treatment of Consumption.

Subcutaneous injections of gold or iodine do good, he thinks, as do sterilized solutions of creasote or the inhalation of compressed air charged with antiseptic and healing vapors. To allay the cough, he advises the use of small fly blisters below the clavicle of the affected side. Codein is also of service. The food should be nitrogenous and easily digested, milk being the best. He does not believe in the use of cod liver oil, on account of its effect on the digestion. Quinine should be administered in tonic doses. Strychnia and arsenious acid are, in his opinion, very useful tonics and, if the pulse is rapid and feeble, he advises whiskey in moderate amounts. For individuals in the early stages he advises a change of climate.

Dr. Joseph M. Patton also contributes a paper on

The Treatment of Pulmonary Tuberculosis.

He advocates the use of the hypophosphites; the hypophosphite of soda being the most useful. He regards the compound syrup of the hypophosphites as harmful, following the teaching of Churchill in this regard. In advanced cases, he has found no mixture so efficient in quieting the cough and loosening the sticky mucus, as one-eighth of a grain of morphia with ten drops of dilute hydrobromic acid given in syrup of tolu. For the night sweats, atropine and camphoric acid are the most useful.

Dr. N. S. Davis, Jr., discusses the value of "Voluntary Respiratory Exercise in the Treatment of Phthisis." The exercises are contra-indicated when there are large cavities in the lungs and immediately after hemorrhage from the lungs, because forcible and deeper respiration may dislodge a clot and provoke additional hemorrhage. They will do little good unless tried in suitable cases and persisted in.

Dr. John A. Robinson also contributes a paper on "The Treatment of Pulmonary Tuberculosis."

Dr. George W. Emery reports a case of "Varix Mammary" in which death from hemorrhage followed puncture of the glands.

Other papers in this issue are: "The Medical Profession in Politics, by Dr. Arthur R. Reynolds; and "The Report of Milk Inspection in Chicago," by Dr. Adolph Gehrmann.

PERISCOPE.

NEWS AND MISCELLANY.

The next Annual Meeting of the Medical Society of New Jersey will be held in the West End Hotel, Asbury Park, on Tuesday and Wednesday, June 27th and 28th, 1893, commencing at 11 o'clock A. M. on Tuesday.

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ORIGINAL ARTICLES.

A. Britton Deynard, M. D., New York.
Cystic Goitre with Cases in Practice. . . . 953

COMMUNICATIONS.

H. D. Hockenberry, West Sunbury, Pa.
Epilepsy. 956

William Barton Hopkins, M.D.
Report of a Case of Detachment of the Ligament of the Patella. Treatment by Suture. Recovery. . 961

SOCIETY REPORTS.

American Medical Association. 962

EDITORIAL

Drainage Needed. 943

ABSTRACTS.

Our Dispensaries, Hospitals, Philanthropy, Frauds, and the Necessity of Medical Reform. . . . 973

F. H. Gibby, M.D., Nashua, N. H.
The Surgery of Childhood. 975

CURRENT LITERATURE REVIEWED . . . 980

PERISCOPE

THERAPEUTICS 983
ARMY AND NAVY 983

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THE
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No. 1895. PHILADELPHIA, JUNE 24, 1893. Vol. LXVIII—No. 25

ORIGINAL ARTICLES.

CYSTIC GOITRE WITH CASES IN PRACTICE.

A. BRITTON DEYNARD, M.D., New York.*

DEFINITION.

Any enlargement of the thyroid gland containing a cyst.

CLASSIFICATION.

Clinically we meet single or multiple cysts. Where vessels predominate in morbid action we have vesicular or cavernous cysts. They contain sometimes pure blood. Where connective tissue increases, fibroid development takes place; producing the fibro-cystic formations whose contents in appearance vary from grumous to gray-looking serum.

Calcareous degeneration takes place in the cyst wall or septæ when multiple, but this is rare. As exophthalmic goitre, or Graves' disease, may accompany this and every form of thyroid enlargement, it is most probable they are only different manifestations of one and the same disease.

ETIOLOGY.

The cause, like that of goitre itself, is an unsettled problem. It is found in the frozen North and under the tropics. Humboldt mentions its prevalence in South America among those of most varied environments, as to soil and climate, and a recent traveler, Vincent, alludes to its prevalence there, particularly among the Venezuelians. Over sixty per cent. of the inhabitants of the Indian Punjaub are said to be affected with goitre. That it is due to a high percentage of magnesian lime in solution in the water cannot be maintained, That it may be a mycosis there is some reason to believe. Klebs suggests organisms. He sees a relationship in changes taking place in the enlarged spleen of intermittent, and goitre. No inflamatory change in vessels, but a lessened resistance pressure of vessel walls of spleen and thyroid gland.

PATHOLOGY.

The thyroid is a vascular, ductless, and true epithelial gland. There takes place a defective maintenance of structure, increase of fluids and organizable products, and oozing of coloring matter. Colloid metamorphosis occurs in cell contents and then it liquifies. Virchow thinks that colloid of this gland commences in the free fluid of its follicles after having been let loose by the destruction of the cells. Cell walls atrophy and connective tissue forms capsule or capsules of cyst or cysts. Hemmorrhage occurs which colors contents of cysts, and hence fluid is generally grumous in appearance. Under the microscope are seen detritus, fatty degeneration cells, and cholesterine. Albumen is always found in cyst contents, and according to Conheim[1], the thyroid is the typical seat for the development of the so-called alkali-abumen; albumnose and meucin. Cysts may develop in cases where little colloid degeneration is seen.

*Instructor Post Graduate Medical School, Assistant Surgeon Manhattan Eye and Ear Hospital. Fellow of the Academy of Medicine, etc.

1 Conheim's Pathology.

Follicles are distended by albuminoid fluid, and cells undergo changes. Fatty degeneration most common.

SYMPTOMS AND DIAGNOSIS.

The symptoms depend on the presence of tumor and the pressure made by it. The most common fibro-cystic have irregular outlines, firm consistency, and fluctuating cysts. Dyspnœa is present generally, but size of growth does not always determine its extent. Pressure on veins may lead to passive hyperæmia of the brain and tidal tinnitus is sometimes present, anæmia constant and prominence of eyes sometimes. It is generally seen in young women, and a hypodermic syringe, used as an exploring needle and aspirator, makes diagnosis easy. The presence of so marked an enlargement over the thyroid region and such an assemblage of symptoms could only be confounded with an aneurism or malignant growth. The former does not move vertically during deglutition and after cysts have formed in cancers, evidence of the disease in adjoining glands would present itself.

TREATMENT.

The methods used in the following cases will best elucidate the principles underlying plan of treatment adopted, and found effective.

Case I. Miss O., æt 30, housekeeper, was seen in June, 1889, with large globular growth in median line of neck over thyroid region, and extending on both sides as far as the carotid vessels. Patient was lymphatic temperament, anæmic and suffering from dyspnœa. A hypodermic needle passed through the centre of the enlargement revealed the presence of a fluid cavity, and the syringe used as an aspirator brought out some dark-looking fluid which did not coagulate on exposure to the air. Tr. Iodine, which in the experience of the writer had been so effective in the treatment of simple hyperplasia of the thyroid was injected (10 m.) into the lateral lobes several times during the summer, and while it lessened the lateral lobes in size, it did not relieve the dyspnœa or reduce the central enlargement. In October following, a seton passed through the cyst entrance and exit about two inches apart caused considerable reaction; temperature 103.° At the end of ten days, patient was put to bed, and suppuration around cord enabled one to pass a small trocar and canula. Through canula retained in position, injection of sol. acid carbolic was used frequently. At the end of ten days, constitutional disturbance had ceased. The seton and canula were removed and a drainage tube introduced. This treatment was kept up for six weeks when tube was removed. The discharge continued of pus for seven weeks and it was feared a permanent fistula would result, but healing in a month occurred. The cyst prominence almost entirely disappeared, the dyspnœa was relieved, but the patient passed out of sight and therefore the ultimate result cannot be stated.

Case II. Miss S., student, æt 22, brunette, family history good, presented herself July, 1890, with large growth over thyroid region more marked on right side. Patient had pallor and dyspnœa. It was stated cyst had been tapped and quickly refilled. From the irregular form, hard and heavy fibroid formations were suspected and afterwards confirmed. Drew off with the aspirator a tumbler full of grumous-looking fluid. At the end of a week it was refilled. Cocaine was injected under the integument over the cyst, and an incision severing tissues made. When the dark-colored thyroid gland was exposed a double corded silk seton was passed and repassed through the cyst wall. Entrance and exit a half inch apart. The ends of the seton strands were separated and tied about six millimeters apart on either side with a view to cut off circulation in enclosed space. Inflammatory symptoms followed and temperature went up to 104° on the third day. The space enclosed was now divided; no hemorrhage following. The phenic acid solution for irrigation was used and temperature fell to normal gradually during two days. The opening was kept up with two large drainage tubes, and the cyst cavity healed up, after four weeks, from the bottom. The dyspnœa and central enlargement disappeared, but the lateral lobes continued hypertrophied. Tr. iodine injections subsequently reduced the size of the lateral lobes somewhat, but whether from infrequency (5 times) or from inefficiency I am unable to state. At the present time, over the situation occupied by cyst, depression appears and patient is pleased with result of treatment.

Case III. Miss G., æt. 28, dressmaker, active and intellectual, applied in October, 1891, for relief from deformity and dyspnœa. Patient was cachectic, anæmic and the eyes prominent. There was a large growth over the region of the thyroid isthmus. Patient had been treated for three years off and on with the iodides. A hypodermic needle determined the contents of a cavity in growth and the contents shown by aspirating consisted of a liquid resembling serum and blood. After a hypodermic of cocaine as in the last case, a bistoury was used and cyst opened as if it were an abscess. The hemorrhage was profuse, but venous in character, and easily controlled by packing the cyst cavity with borated cotton and compress. The second day this was removed, and the bleeding which was free quite ceased after applying saturated solution chromic acid to cavity and repacking. There were no constitutional symptoms and my associate Dr. J. H. McCullough, who assisted and attended to subsequent treatment, informs me that suppuration hastened by poultices took place, and healing as desired. I saw the patient one year after. The growth was not apparent; the patient much improved in health and grateful for treatment.

Case IV. Miss H., æt. 20; student; was first seen June, 1888, with simple parenchymatous goitre of medium dimensions. A hypodermic of tr. iodine in six weeks reduced the thyroid to normal size. In October, 1891, patient presented herself with large growth over the thyroid region. She was very anæmic, eyes protruding, and had dyspnœa and stupidity. The presence of a liquid cavity was determined with the hypodermic syringe, and its contents shown to resemble grumous fluid. Cocaine was used and an opening made down to the cyst wall. This was opened with bistoury. Hemorrhage was copious, but with fingers in wound somewhat under control. Adjoining cysts to the one opened were determined upon and septæ severed. Packing with cotton and compress stopped bleeding. The second day chromic acid was applied to the inside of cavity repacked. No constitutional disturbance followed and my associate Dr. J. H. McCullough, who was present and attended subsequently, reports no incidents of importance. I saw patient one year after and the central enlargement had disappeared. There was no prominence of eyes nor dyspnœa. The general health of the patient was greatly improved. The lateral lobes were somewhat enlarged, but the results were satisfactory to the patient.

CONCLUSION.

It is quite unnecessary to state that the dangers of such treatment was made known to the patients. They were undertaken as a duty rather than as an anticipated pleasure. All the precautions that go along with modern surgery: cleanliness, etc., were observed as far as practical. Prof. Depuis reports cases treated with trocar, canula, and tr. iodine. Canula left no wound while healing. Billroth reports a death from suppuration and septicæmia after injection of alcohol. With an open wound there is less danger from septicæmia, and it is more under control. Incision is to be preferred to excision of the cyst owing to difficulties attending the operation and dangers following, such as shock, etc. Removal of gland is condemned by more recent writers owing to the danger of a development of a condition first described by Sir Wm. Gull, and afterwards by Dr. Ord named myxœdema. A state in which meucin is developed in the connective tissue, and higher phychological centres become less responsive. This is, doubtless, the cachexia strumipriva of the German writers. The few cases of myxœdema seen by the writer resembled forms of cretinism. Cutting out a portion of the isthmus of the thyroid, first practiced by Sidney Jones, is said to be efficient treatment, but in those cases the anatomical identity of isthmus could not be recognized, owing to degeneration malformations. The hemorrhage is free, but except in hæmophilia under control with the packing and caustic as described. That there is danger from air and blood clot entering the veins there is no doubt, but in all surgery involving veins of the neck the risk can be lessened by pressure below the seat of incision. It is said that that those who follow the service of the gynecologist or the ophthalmologist learn how much traumatism the abdomen or the eye can stand, and it is hoped from a perusal of this paper some reader may better estimate how much meddling the cyst of the thyroid in some cases will stand with benefit to their possessors.

COMMUNICATIONS.

EPILEPSY.*

H. D. HOCKENBERRY, West Sunbury, Pa.

In the preparation of a paper upon any scientific subject, the means afforded to this end are first, the recorded experience of others who have made the subject in question a careful study; and second, the personal experience of the writer.

To prepare a compilation of what others have written is often, not only to destroy the original and interesting style of the several writers; but even their expressed thoughts may be so contorted as to be destroyed beyond recognition. The personal experience of a country physician can not add much of value to the literature of this disease, because from its very nature there cannot be that careful supervision of a sufficient number of cases, upon which to base a theory and method of treatment.

It seemed to me better, after consulting all the subject matter available, including personal experience, rather to discard all this and branch off into the realm of the speculative, giving you that which the thoughts of idle moments has suggested as to the nature of this disease; and which, if of no practical value, at least has the merit of originality, and can be productive of no harm, by reason of the absence of any proposed experimental treatment.

Epilepsy is not one of the "New Diseases." For aught known to the contrary it may be as old as man himself. At least it will be no trouble to find those high in authority who would ascribe this to the indiscretion on part of Adam and Eve in eating of the "forbidden fruit." From ancient writers, we learn that this complaint was well known, and at a time when "spiritual agencies" were believed in as productive of diseases, the convulsive contortions of the epileptic were thought to be due to the presence of a devil that had gained possession of the afflicted and hence called "Morbus Dæmoniacus."

And when spirits good and evil were thought to be the ruling factors in all the actions of mankind, it certainly required no stretch of the imagination to accept such theory. To see one apparently in the enjoyment of good health, possessed of all the vigor of physical and mental activity, suddenly, without warning, seized with a convulsion; the sardonic grin, the rolling eyes, frothing at the mouth, the jerkings of the arms and legs, all seemed more like the work of a devil, than that it were due to any physical cause or pathological change. Oft times it cast him into the fire and oft times into the water; certainly nought but an evil spirit could thus torment man.

It is said to have been the custom for those present, when one was fallen into a fit, to spit upon him, or into their own bosoms and thus avert the evil from themselves. From which custom arose another of the many names this disease received, "Morbus Qui Sputatur."

In the years that have brought with them such advancement in general knowledge, and medical knowledge as well, pathology has perhaps nothing much better to offer, than this theory of demoniacal possession. And the therapeutics of the present day are not more successful, than when the priesthood, by their incautations, attempted to drive out the devil.

Epilepsy has seemed to me to bear such an analogy to immoral habits or vices, as to be called a "fit habit." Man is a creature of habit. What he did yesterday he is likely to do to-day, and still more likely to repeat to-morrow. Past surroundings and circumstances are predisposing causes to a certain line of action; present surroundings and circumstances exciting causes, and in turn become predisposing causes to direct future actions. And, not only is this true as regards the individual himself, but it has its influence upon his offspring in impressing upon them a tendency to certain moral characteristics or pathological weaknesses.

In ethics we call such inherited tendency, "original sin." In pathology, "hereditary predisposition to disease."

*Read before the Butler County Medical Society, April 18th, 1893.

The passionate man, if the falling into a rage be looked on as in some of the other vices, is to be pitied rather than condemned, and is a proper subject for a course of medical treatment.

Born into the world with a predisposition to this vice, educated by parents who may be are themselves afflicted with this moral disease, he is certainly most unfortunate in his surroundings and a very pitiable object. With no power of self-control, the most trival opposition throws him into a fit of anger, during which his words and actions are those of a lunatic, rather a sane man.

According to the present status of physiology and also pschycology, we are taught that the various functions of the body and mind as well, are represented by centres of gray nervous matter, the irritation of which is followed by a corresponding act, physical or mental. A predisposition to immoral habits is that condition of the nerve centres of emotion, of passion, of appetite, that renders them abnormally susceptible to impressions, so that they are easily stimulated to action. But the predisposition alone will never excite these centres. There must be an exciting cause, some impression carried through the medium of one of the nerves of special sense producing a consciousness, say of resistance or opposition, and this irritates the emotional centres, and a spasm of rage results. The fierce expression of countenance, the clenched fists, the gnashing of the teeth, the loud voice, the emphatic language are characteristic phenomena.

After such an attack there follows a period of depression or quiescence, familiar to those who have indulged themselves in this habit. Then a return to the ordinary state of moral equilibrium with this exception, the emotional centre is left with an increased susceptibility to respond to inhalation. That is, this first indulgence in rage has added to the predisposition, and a second is more easily excited. Each rendering the individual more and more susceptible to resent opposition, until the predisposition becomes so marked that the ordinary opposition man meets with in every-day life is sufficient to throw him into a rage. He has become a confirmed victim to this habit, and it is hardly possible to place him under conditions so favorable that he will not come in contact with something irritating. But not this vice alone, that has been used as an illustration, but of all others, the history is the same; the congenital predisposition, the first indulgence, the increased predisposition, until the man becomes a slave to vicious habit, with no strength to resist the promptings of his evil nature, that is, the impulse sent out from a perverted nerve centre.

Such an one has not acquired any new powers of mind or body; it is but a perversion of his normal attributes; a disordered function of certain centres of nervous matter that are the seat of psychological acts. So with a class of physical diseases to which epilepsy belongs; there is no change in tissue structure, but a perversion of the functions of normal tissue, of nerve centres that generate, that direct, that co-ordinate motor impulses. Epilepsy is a functional and not an organic disease. As yet, no characteristic morbid change of tissue has been found to accompany this. It is not probable the time will ever come when its morbid anatomy will be known—when, by microscopical examination or chemical analysis, there can be detected that difference in nerve-cells by which is distinguished a greater or less power of receiving or generating nervous impulse.

Epilepsy is a "fit habit." The motor centres have from time to time indulged in independent, irregular and meaningless actions, prompted by some reflex irritation, until such motor debauch has become habitual. There has been, perhaps, in most cases, a hereditary predisposition; an inherited tendency from parents who have been afflicted with one or more of the various neuroses of body, or who have been slaves to immoral habits of passion, emotion, or appetite. These bring children into the world with a predisposition to one or more of the various neuroses or vices. It may be epilepsy, it may be dipsomania; it may be kleptomania.

How true it is that the iniquities of the parents are visited upon the children! But what a consolation to those possessing this inherited weakness, to know that if the exciting cause be avoided, the predisposition goes for naught. No difference how much of old Adam is born in us, we have but to resist the exciting cause in the temptation to do evil, and we escape condemnation.

No difference how many friends have died of hereditary disease, say of tuberculosis, father, mother, uncles, aunts, there was in everyone of these cases an exciting cause; exposure, fatigue, a lowering of the standard of health. Avoid this and the fatal disease is escaped.

In the child predisposed to epilepsy, there is an abnormal susceptibility of the centres of motion, so that these when irritated send out a motor impulse to the various muscles of the body exciting them to contraction. As the emotional centres should be under the directing and controlling power of the will, so the centres of motor impulse should be under the control and direction of co-ordinating and distributing centres. And as the emotional centres may act independent of the will, as is seen in the excitement of rage; so the motor centres may act independent of the co-ordinating and distributing centres and a convulsion result.

The exciting cause is an impression carried to the motor centres through the medium of an afferent nerve. It may be the presence of worms, or undigested food in the alimentary canal, irritation of the sexual organs; any such acts as an irritant, the impression is carried to the motor centres and produces that phenomena, called a fit. One fit predisposes to a second, a second to a third and so on until even though the original exciting cause has been removed, the susceptibility to reflex influences has become so marked that the ordinary acts of nutrition are sufficient to excite to convulsion.

The individual has become an epileptic.

But while the predisposition to epilepsy is most often inherited, it may be acquired. In infancy and early childhood the actions are chiefly automatic.

There has not been a development of the "co-ordinating" and "distributing" centres to that degree but that a reflex irritant may easily disturb the normal equilibrium of the motor centres and produce a convulsion.

The irritant must necessarily be more powerful than when there is an inherited tendency; but the convulsion that follows predisposes to a repetition of this. The medical profession should have this fact clearly in mind, and when called to see a child taken in convulsion, not treat it as a light matter, because there is no immediate danger to the child. A convulsion is never a trival affair, and it should be impressed upon the minds of the parents, that its gravity consists in the danger of such becoming a habit; thus rendering the future of the child one of great misery. And that to avoid this the most watchful care should be exercised over its habits and surroundings, its food, clothing and education. It is not true that every child that has a fit becomes an epileptic, neither is it true that every young man who gets drunk becomes a drunkard. Yet who would not have the greatest solicitation regarding a son who had thus indulged in strong drink, and would use the utmost care to avoid a repetition of such debauchery, knowing that in this is the only safety.

Prevention is better than cure. To bring that degree of intelligence to bear upon the development of the child so as to protect the susceptible nerve centres will not only ward off physical disease but moral disease as well. As the physician is not usually consulted about such hygienic principles until some one has suffered because of their violation, when called to treat the convulsions of infancy and childhood, not only should he administer the necessary drugs, but the far more necessary admonition as to the proper bringing up of the child. Too much can not be said upon this part of the therapeutics of epilepsy. To my mind this, and this alone, is the road to successful therapy. It must be preventive. Why is it not more generally understood that one fit, except as a predisposing factor, is as independent of a second as one attack of pneumonia is of a subsequent attack. How often is the question asked! "Why can doctors not cure epilepsy, asthma, sick headache?" That is, give a treatment that will prevent a recurrence of the attacks. When called to treat a patient with pneumonia, the physician has done his best by the patient when he has seen him restored to his former status of good health. Dismissing him with instructions to use such care in the future as to avoid all exposure lest he be again attacked with pneumonia. So with epilepsy, sick headache, asthma, when a paroxysm is past and the patient restored to his usual health, the skill of the physician has accomplished all that is possible in the way of medical treatment.

The recurrence can only be prevented by the avoidance of exciting causes.

A peculiarity of epilepsy and also sick headache, which is of near kin, is that following an attack of sickness there is a period, when exposure to those influences which have brought on an attack, may be indulged in with impunity. The writer, speaking from personal experience says, "that while the indulgence in good living is very likely to be followed by sick headache, at no time can he so safely eat of the richest food, as the day following a headache."

This is but additional evidence of the analogy to immoral habits. The safest time to oppose a passionate man is after he has indulged in a fit of anger. The drunkard is most able to resist temptation after recovering from a debauch. The libertine most virtuous after a period of sexual indulgence.

The reason of this is quite apparent. The centres of emotion, of appetite, of motor impulse having for a time been unduly stimulated, are in a condition of exhaustion, and what seems to be resistance is after all but a lack of strength to respond to the stimulus.

Could such a state be kept up, it would be an easy matter to be virtuous and to be temperate.

But of what value is all this speculation as to the nature of epilepsy, if it suggest no treatment for its relief. The preventive is all very well but it can offer no comfort to the sufferer, who has become a victim to the fit habit. Is there no treatment to relieve a condition that is worse than death itself; that renders the individual miserable, unfits him for the activities of life or the enjoyment of any of its pleasures? If there be an analogy in this to immoral habits, as I have tried to show, may this same analogy not extend to treatment as well, and that which will cure an immoral habit suggest a treatment for a pathological habit?

Let us take for example the man addicted to habits of intemperance. The popular treatment for this at the present time is the "Keely Cure." And if there be in this what is claimed for it, why may it not cure other habits as well, both moral and physical. If the "chloride of gold treatment" be not a myth, then man has indeed discovered a means by which he may "be carried to the skies on flow'ry beds of ease." A willingness to submit to treatment, and the use of the hypodermic syringe very much simplifies the plan of salvation.

But what is the rational treatment for habit? Man possesses the attribute of will; a characteristic by which he is distinguished from the lower animals; an attribute by which he may direct his actions independent of his surroundings. If this be properly developed, it controls his emotions, his passions, his appetite. No difference how aggravating the circumstance or the opposition he meets with, by the proper exercise of his will, his emotions are controlled and his temper unruffled. No difference what the temptation to depart from virtue may be, if man be true to his nature, he resists the wiles of the siren "charm she never so wisely." Resistance to temptation is the only rational, the only sure cure for vice.

The exercise of the will in such resistance increases the strength of this attribute, until in time the tendency to sin is very much lessened, the habit held in abeyance. It may be the habit has been so long indulged in, there is not left sufficient strength of will to resist temptation. For such individual there is no hope, except he be placed in an asylum where all means to gratify his evil cravings are wanting; so that the absence of indulgence will in time lessen his desires and allow the will power to gain its ascendency. But not only abstinence from the indulgence of the propensity in question, but from all others. The drunkard who wishes to reform must not only abstain from the intoxicating cup, but he must abstain from anger, lust, etc., as these weaken his will power and lessen his strength to resist the craving for strong drink.

The epileptic should be treated as one without power to resist the fit habit. If not placed in an asylum, should be under the care of one who sees that the patient is not exposed to those exciting causes that bring on a fit. Every such thing should be avoided. The habits of the patient looked after most carefully, remembering that everything that tends to weaken the controlling centres, strengthens the fit habit. Indulgence in anger, in strong drink, in lust, in gluttony, all predispose to a recurrence of fits.

Very often the friends of an epileptic, through a mistaken sense of kindness, indulge him in all his whims, when it is very essential that he should be taught habits of self control. The epileptic is so often addicted to gluttony, to self abuse, irritable in temper, it seems but a natural consequence that when the controlling power is weakened by one bad habit, others should follow. The cure of one is but accomplished by curing all.

There is no specific treatment for epilepsy. It can only be successfully treated by the removal or the avoidance of every thing that may act as an exciting cause in bringing on the convulsions; thus allowing the coordinating and distributing centres of motor force to become sufficiently strong to control or modify motor impulses. The avoidance of every thing that tends to nervous excitement. To no class does the admonition "Be temperate in all things," come with such force as to the epileptic. Temperate in eating, in drinking, in exercise of both mind and body. Total abstinence from all things not essential to the physical well being. It would be well for epileptics, could they be placed in an asylum removed from all the exciting cares and worry of the world, as well as the temptation to indulge in its pleasures.

But is there nothing in the way of drug medication of value in the treatment of epilepsy? Not as a specific. And by such you understand, a treatment that will remove the predisposition to fits. As in scientific investigations it is well for us to recognize the unknowable that we waste no time in vain search after such hidden things; so in the practice of art, we should recognize the impossible, and not attempt impossibilities.

To attempt to remove predisposition to disease would be as hopeless a task as to undertake to get rid of "original sin." "What can not be cured must be endured." And to ward off the evils of predisposition, avoid the exciting cause.

In the treatment of epilepsy, each case met with must be studied separately and treated as the indications suggest. If there be a condition of debility, tonics, medicines to aid digestion, the careful selection of a nutritious diet. If the excretory glands be sluggish, suitable agents to stimulate these. In fact whatever is necessary to bring the general health of the patient up to its proper standard is treatment for epilepsy. What about the use of the "bromides" in this treatment? You will certainly be disappointed if you depend upon the prolonged use of these to effect a cure. For a time these seem to control the fits; but afterwards they loose this effect; and the last stage of the patient is worse than the first. These control convulsions by stimulating that exhausted condition of the motor centres that follows a fit; but the controlling centres are also weakened in the use of these and the result is while the fits may return with lessened violence their frequency is increased.

The bromides may be useful at times of nervous excitement, as for example during the menstrual period, but their use should not be long continued, because of the effect upon digestion, upon the blood, and upon the nutrition of the brain. For other so-called specifics, the same may be said; at certain times or under certain conditions they are useful; but to give to every patient indiscriminately and keep up their administration indefinitely must result in great harm.

When may an epileptic be considered as cured? When would you consider a drunkard cured of his drunkenness? Is it not true that "eternal vigilance is the price of safety;" and let him that thinketh he stands take heed lest he fall? As the time never comes to the man who has been addicted to intemperance that he may become careless when exposed to temptation, neither does it come to the epileptic when he may neglect the observance of proper hygienic precautions. It may have been one year, it may have been ten years since a fit occurred, each year lessening the danger of return; but never the time that this is altogether removed. In a certain sense an epileptic is cured when he has recovered his usual health after a convulsion; but in that the danger of recurrence is removed, he is never cured.

He was a Dentist.

Polite Waitress—"Tea doctor?"
Doctor—"No, coffee, if you please."
Waitress—"Roast beef, doctor?"
Doctor—"If you please."
Waitress—"Corn, doctor?"
Doctor (indignantly) — "No, madam, I am a dentist."

REPORT OF A CASE OF DETACHMENT OF THE LIGAMENT OF THE PATELLA. TREATMENT BY SUTURE. RECOVERY.

WILLIAM BARTON HOPKINS,* M. D.

Last November a large healthy man, forty-five years of age, was admitted to Episcopal Hospital. He had stumbled and fallen, striking his right knee with great violence upon a cobble-stone. Examination of the joint revealed a change of its natural contour. It was flattened anteriorly, and on flexing the leg upon the thigh, the form of the condyles of the femur became clearly exposed. There was a moderate fluctuation from effusion. The entire patella could be felt and seen drawn well up the thigh. No fragment of bone could be detected above the tuberosity of the tibia. As it was, therefore, evident that the patella had been torn away from its ligament, it was decided to open the knee-joint at once. The patient was etherized, and after preparation of the parts concerned the seat of injury was laid bare by a longitudinal incision it front of the joint about seven and a half inches in length. Not only was the condition of affairs looked for found, but in addition to the detachment of the ligament from the patella, the whole fibrous covering of the latter was found to have been ripped off and to have remained attached to the ligament. The patella was readily brought down to its natural position between the condyles, and but for its bare anterior surface was found to be intact. Very complete and durable coaptation was effected by the introduction of eight interrupted silkworm-gut sutures at the following points: Three king sutures upon which the greatest reliance could be placed were carried through three small drill holes at the apex of the bone uniting it with the stump of the ligament. The upper margin of the aponeurotic hood was then attached to the fringe-like fibres of the tendon of the quadriceps extensor with which it has been continuous, while its lateral margins were sutured through drill holes on either side of the patella. As all of these silkworm sutures passed through either holes drilled in the bone or through a very stout tendon, the approximation of the parts was not only snug but very strong. After thoroughly cleansing the knee-joint the long wound was closed, catgut drain being placed in its upper and lower angles. A liberal gauze-dressing was applied, and a long posterior splint retained to the limb. Three days afterward the dressing was removed on account of a slight rise in the patient's temperature, but it was found to be quite dry, except at the points of drainage, where a few drops of blood-stained synovial fluid escaped. The joint was free from redness, fluctuation and pain. In a month the patient was allowed to get into a wheeled chair. The natural contour of the joint was entirely restored.

Five months after the accident he was allowed to begin to flex the knee with considerable force, and it is interesting to observe that almost all the motion he now has, has been acquired within one month. As will be seen, he walks without a limp, and his limb has almost completely regained its strength. The patella is felt to be freely movable, and there appears, therefore, to be no obstacle to the restoration in a short time to the normal function at the joint.

So far as I can learn, sixty-six cases of rupture of the ligamentum patellæ have been reported. This number includes detachment of its upper and lower extremities as well as ruptures in its continuity. Of these I have had an opportunity of referring to fifty-five, including thirteen cases which were collected by Dr. Sands from the records of four hospitals in the City of New York.

In all the cases where treatment was employed, some appliance appropriate for fracture of the patella was used with results stated to be fair or good, save three. In two of these the kneejoint was opened and the parted ligament sutured to some fibrous tissue attached to the tuberosity of the tibia, by Sands of New York, and to a similar structure at the apex of the patella by MacFarlane, of Toronto, with excellent results. In both these cases silver wire was used. In the third case operated upon, the stump of the ligament and some fibrous tissues at the apex of the patella were

* Surgeon to the Episcopal Hospital, Philadelphia.

scarified long after the occurrence of the injury, but no sutures were used.

Two very remarkable cases are reported by Mr. Shaw, of London, of simultaneous rupture of both ligaments. In one, both ligaments were detached from the apices of the patellæ, while in the other case both parted from their insertions in the tuberosities of the tibiæ.

While, technically, even a very minute fragment of bone remaining in contact with the detached ligament would, if the separation occurred at its patellar extremity, constitute a fracture of the latter, a similar condition at its tibial insertion could hardly be classified, without causing confusion, as a fracture of the tibia. It would, therefore, seem proper to class such an injury as rupture, or, I think better, as detachment of the ligament, if a greater part of its rent surface is tendinous, not bony.

In a very large proportion of cases recorded, the lesion was caused by muscular violence. The case now reported I incline to attribute to the combined forces of direct impact and muscular contraction acting simultaneously; the cobblestone forcing the apex of the patella backward, while the tensile strain was applied by the muscles of the thigh. I do not think that the tendinous covering of the bone could have been stripped off by either direct violence or muscular contraction alone. Regarding the advantage in operating at once or at a latter period; if opportunity for the former offers, I see no reason for delay, provided there is no severe bruising of the soft parts adjacent, for the inflammatory reaction from the mere rupture is in most cases noticeably slight, and coaptation can be far more satisfactorily effected before, than after adhesions have formed.

As the special feature of this case is the stripping of the bone, it would be of great interest to know if a similar injury had ever happened before, but as its existence could not be revealed except by operation, whether it is unique or not must remain a matter of conjecture. While it might have added to the risks of necrosis of the bone, from impairing its blood supply, had suppuration occurred, it certainly aided materially in securing an approximation well equal to resisting any accidental strain that might be put upon it during the process of repair.

SOCIETY REPORTS.

AMERICAN MEDICAL ASSOCIATION.

Forty-fourth Annual Meeting, held in Milwaukee, Wisconsin, June 6, 7, 8 and 9th, 1893.

TUESDAY, JUNE 8TH,—FIRST GENERAL SESSION.

The Association met in the Academy of Music, and was called to order by the Chairman of the Committe of Arrangements, Dr. U. O. B. Wingate, of Milwaukee, at 11 A. M.

Divine blessing was invoked by the Rev. Henry T. Secrist, of Milwaukee.

On the platform were Drs. H. O. Walker, of Detroit, First Vice-President; Ernest Hart, Editor of the *British Medical Journal*; and Jesse Hawes, of Greeley, Colorado, Fourth Vice-President.

Dr. Wingate introduced His Excellency, Geo. W. Peck, Governor of Wisconsin, who delivered an

ADDRESS OF WELCOME.

He said he was delegated by a million and a half of people of Wisconsin to bid the Association welcome, which he did with pleasure. Wisconsin was a state where there was no need for any one to be sick, where there was no need for cemeteries, except to bury people who came there from other states with diseases that Wisconsin had not had time to cure.

Ex-Mayor P. J. Somers welcomed the Association on behalf of the citizens of Milwaukee.

Dr. Wingate presented President Hunter McGuire, of Richmond, Va., with a gavel with a silver handle and a body made of brick, representative of the solidity of the institutions and industries of

*Notes from special correspondent to THE MEDICAL AND SURGICAL REPORTER.

the city. Its color was representative of the Cream City of the Lakes, and its borders were studded with pearls taken from Wisconsin's rivers.

He then introduced the President of the Association, Dr. McGuire, who delivered the

PRESIDENT'S ADDRESS.

He said:—Our prime object is to study the origin of disease, the immediate occasion of its outbreak with the means of preventing it, and the best means of loosing its malignant hold if once fastened upon the individual or the community.

Regarding the membership of the American Medical and allied associations, he said we cannot too highly estimate the importance of attaining the greatest degree of excellence possible in the various independent organizations that were here represented. This could be more effectually obtained through the state and local societies that were in active and friendly relations with us. The state societies should strive to induce their members to form societies in every county of their respective states, in all cities of the same, and in all townships, or parts of counties where there was a sufficient number of physicians to justify such organizations.

Relative to the revision of the code, he thought it should be referred to the several state medical societies entitled to representation at the meeting, and that these societies should report their action to the annual meeting of the association. This would give us a fair expression of the opinions of the representative societies from all parts of our country and every reputable American practitioner of medicine would have an opportunity to vote on the subject.

President McGuire then referred to police regulation of small-pox as a matter for the gravest consideration upon the part of the general government and of the several states of the Union.

Quarantine was also considered.

In closing he touched upon a National Board of Health, and said its necessity would be appreciated when it was remembered that our present laws referred almost entirely to quarantine in time of epidemics, or threatened epidemics, such laws being carried into effect by the Marine Hospital Service through the Treasury Department. He learns that there will be organized movements to secure legislation by Congress on the lines indicated. He therefore suggested that a committee be appointed to cooperate with the Committee appointed by the American Public Health Association and with committees of other important bodies interested in securing the legislation needed.

On motion of Dr. Scott, of Ohio, the President's Address was referred to a special committee to report on the suggestions contained in it.

President McGuire then introduced Dr. Ernest Hart, who made a few timely and exceedingly appropriate remarks.

Next in order was the report of the Treasurer, Richard J. Dunglison, of Philadelphia. The report was read by Secretary Atkinson, which showed a balance in the treasury of $5,844,78. On motion the report was received and adopted.

The report of the Secretary was called for, and read by Secretary Atkinson. On motion the report was adopted.

The President called for the report of the Rush Monument Committee, but Dr. Geo. H. Rohe, of Catonsville, Md., asked for further time, which was granted.

Secretary Atkinson read the report of the Secretary of the committee on Public Health, in the abscence of the Chairman, Dr. Comegys, of Cincinnati. The committee was given a full hearing by the Congressional Committee. The Chairman of the Senate Committee, while willing to extend the powers of the existing quarantine office, did not think it possible to get an appropriation for its establishment. The members of the House Committee favored such a department, but the session adjourned without action. The best course, the committee thought, was an appeal to President Cleveland that he recommend the matter to Congress in his next annual message.

Dr. J. B. Hamilton, of Chicago, moved that the report be adopted; that it be printed in the journal of the Association, and that the committee be continued. Carried.

The report of the committee on Pan-American Medical Congress, was read by Dr. Charles A. L. Reed, of Cincinnati, Secretary-General of the Congress. The committee reported that every State in the Union, South America and Hawaii would be represented, and that everything pointed to a successful meeting. On

motion the report was adopted, and a vote of thanks extended to the committee for their efficient work.

The election of the Nominating Committee was accomplished, the Association adjourned until Wednesday, 11 A. M.

SECOND DAY, WEDNESDAY, JUNE 7TH—GENERAL SESSION.

The Association was called to order by the President at 11 A. M.

The Chairman of the Committee of Arrangements announced the receptions for the evening.

The President announced as the Committee on his Address, Drs. J. F. Hibberd, of Richmond, Ind.; C. A. Lindsley, New Haven, Conn.; W. T. Bishop, Harrisburg, Pa.; T. P. Satterwhite, Louisville, Ky., and Nicholas Senn, Chicago.

The Permanent Secretary announced the Committee on Nominations, thirty-four States being represented.

The Permanent Secretary also read invitations for the next session to be held at Asbury Park, N. J., and from Hot Springs, Ark., which were referred to the Committee on Nominations.

On motion it was resolved, that in view of facilitating the work of the sections and in the general interest of the Association, the election of officers of the Association shall take place on Thursday, and that after Thursday no Executive business shall be transacted at the general session of the Association except in accordance with a recommendation of the General Business Committee.

Dr. H. A. Hare, of Philadelphia, Pa., read the Address on General Medicine. He selected for his subject "A Brief Review of Some Practical Advances in Medicine and Therapeutics."

The author confined himself to the presentation of certain broad facts illustrative of the present status of the non-surgical phases of advance in medicine. The increased scope, variety and accuracy of diagnostic examinations no longer leave the practitioner any excuse for empirical treatment of a disease on general principles. He said supposedly specific ailments were being recognized as merely symptoms of the real causative and, therefore, curable distemper. A particularly instructive example of such evolution in the art of symptomatic diagnosis was cited in the case of anemia, so-called. Neither under the comprehensive title "impoverished condition of the blood," nor as the assumed result of disease in the blood-making organs, has there been warrant for empirically dosing with iron till the patient's teeth were discolored or with arsenic till he felt as though his back bone were a crow-bar; but when, with adequate microscopical devices, it became possible to count and measure the decrease and increase of the blood corpuscles in number and size, then a basis for the test and proof of the value of arsenic in pernicious anemia and of iron in chlorosis was found.

Mr. Ernest Hart, of England, was announced to deliver his Address on Cholera on Thursday at 11.30 A. M.

The Permanent Secretary read a report of the Librarian in which it was recommended that the terms of transfer of the library to the Newberry Library at Chicago be left to the Board of Trustees and the librarian, with power to act, and that such action be final.

On motion, the report was received and the views relative to the library were adopted.

Dr. Henry D. Holton, of Vermont, Chairman, read the report of the Committee on Revision of the Constitution. The report has already been published so far as it relates to the Constitution. With regard to the Code the Committee recommended the following:

1. We would omit all sections of the Code that describe the obligations of patients to their physicians, and of the public to physicians. The reason for this suggestion is that the Code is not designated either for patients or the public, and so the sections are superfluous. This omits the ten sections under Art. 11, on pages 5, 6, 7, and 8, and Art. 11, on page 20.

2. We suggest the placing in the same list with the copy-righting of medical books and other similar work, the patenting of all mechanical appliances used in medicine or surgery. The Code says nothing respecting the copyrighting of medical publications, and we find no good reason why it should say anything respecting the patenting of mechanical devices.

3. We recommend the more accurate definition of the term "consultation," as we find good reason to believe that serious

estrangement has arisen between physicians because of the different ideas they attached to this term. The Code of Ethics, page 14, second line from the top, says that in a "consultation" the responsibility must be equally divided between the medical attendants—they must equally share the credit as well as the blame of failure. With this statement before us, it is clear that there can be no consultation when one physician meets another for the purpose of obtaining from him an account of the case, or pertinent facts of family history, or a record of the past management of the case, in order that he may more intelligently assume the entire responsibility of its future conduct. Thus the Existing Code of Ethics of the American Medical Association defines a consultation substantially as a meeting of doctors to discuss a case to the end that they may equally share in its further management. By the same authority a consultation is not a meeting of physicians with a case, in which one gets all the facts possible from the other or others, as a preliminary to his assuming entire responsibility in its future conduct.

From these data it is clear that usually the specialist does not consult with the general practitioner. He simply obtains all the facts the general practitioner possesses, preparatory to assuming full control of the case.

There are many other occasions for the meeting of medical men in connection with cases of sickness, that are in no sense consultations according to the existing code. Hence we think that in the interest of scientific accuracy, there should be a discrimination made in the study of consultations, as present conditions differ widely from those of forty or more years ago.

Having promised this much, your committee recommends the alteration of article IV, section 1, page eleven, Code of Ethics, to read as follows: "A thorough medical education furnishes the only presumptive evidence of professional abilities and requirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless as the good of the patient is the sole object in view, and this is often dependent upon personal confidence, no intelligent practitioner who has a license to practice from some medical board of known and acknowledged legal authority to issue such license, and who is in good moral and professional standing in the place in which he resides, should be refused consultation when it is requested by the patient."

4. It is suggested that it would be wise to re-write the code in phraseology so plain as to make it a practical, common sense document for daily guidance in the performance of our various duties and an aid in meeting responsibilities incident to our professional life.

Finally, your committee found that in but few medical colleges has this document been taught, and never as a portion of the required curriculum.

It is believed that professional success of the best sort depends as well upon a practical knowledge of medical manners and medical ethics as upon anatomy, pathology, therapeutics or surgery. To be master of the rules of conduct by which our neighboring doctors can be made our friends and kept such, so that the people may see that the medical men who serve them form a band of brothers devoted to the service of suffering humanity, is to possess a most desirable professional resource.

The committee finds the Code of Ethics contains the essentials for the successful conduct of a medical career, as these have been learned by the actual experience of the best members of the medical profession, from the earliest dawn of history to the day on which it was written.

It sincerely trusts that the present discussion will lead to a more intelligent appreciation of its truths by all physicians, and especially that hereafter it will be made a text-book in every medical college, and an accurate knowledge of its contents be made a condition of receiving the degree of Doctor of Medicine.

The Committee depreciates all efforts to abolish, belittle, distort, ridicule, or otherwise to lessen its hold upon the profession. It is a heritage, representing at once the best characteristics of our profession during all its history, and a scientific document that points out the line of greatest prosperity in the future.

It would seem far better that in the spirit of scientific students we patiently inquire whether in any respect the changes incident to the last half century warrant any modifications of statement of

any portion of this document, in the interest of good to all and ill to none, for the increased prosperity of medical art and science and a more united professional power over those whom we serve.

Dr. Henry Didama, of Syracuse, N. Y., then presented a minority report, in which he recommended leaving the present methods of representation, nomination, Constitution, and the Code as they now stand.

On motion, the majority report was adopted, the Committee continued, and the amendment, suggested, according to the Constitution, were laid over for one year.

Dr. J. B. Roberts, of Philadelphia, entered his protest against the construction of the Constitution by the Chair, requiring the action on the Code revision to be postponed until the next annual meeting.

Dr. N. S. Davis, of Chicago, called attention to the law which declares that all amendments must lie over for one year.

The President decided this in order, and said the amendment *must* lie over.

Dr. N. S. Davis then made a report on behalf of the Committee to confer with committees from the Medical Society of the State of New York, and the Medical Association of the State of New York. The Committee said in its report that when it is remembered that the so-called technical differences existing between the two Associations referred to and the American Medical Association, consist of nothing less than a deliberate abolition of the National Code of Ethics, which is equivalent to a voluntary withdrawal of said Associations from further connection with the National organization, it must be apparent to all that it would be most unwise for this body to make any propositions relating to the medical society of the State of New York.

On motion, the report was received and filed.

There being no further business, the Association adjourned till Thursday, 11 A. M.

THURSDAY, JUNE 8th, THIRD DAY, GENERAL SESSION.

The Association was called to order by the President at 11 A. M.

After the announcement of a concert to be given at Schiltz Park, under the auspices of the local physicians of Milwaukee, by the Chairman of the Committee of Arrangements, Dr. Wingate, President McGuire introduced Mr. Earnest Hart, of London, who delivered an address entitled

CHOLERA AN EXCLUSIVELY WATER BORNE DISEASE.

He said in dealing with the subject of cholera, it was one which had perhaps been more written about, more discussed, than any other of our time. It was the subject of universal conversation. Cholera was no longer a thing to be dreaded, to be wondered at, or to be beyond control. In old text-books cholera was summarized briefly as follows: Diagnosis of the disease easy; pathology uncertain; causation unknown; treatment useless. All this had been modified. Cholera was a filth disease, carried by dirty people to dirty places and spread by dirty or impure water. He denied that the advent of cholera was mysterious, or that any of the incidents of its diffusion were unknown. He looked upon quarantine as a tribute that dirt pays to cleanliness. Cholera comes from India and India only, although it sometimes hibernates in Europe. It had two routes, one across the Caucasus to the Baltic ports, and thence, either directly or through Hamburg, westward. The other route was from Mecca by pilgrim caravans or boat via Alexandria to Europe. Last year's epidemic originated in Cashmere and was brought to Hamburg within five months. All mysterious talk of transmission of the disease by atmospheric currents belonged to a past period, We used to talk of thunder being mysterious, and it is just as reasonable to talk of cholera being mysterious. It was still a common popular notion that cholera comes by Providence and goes by drugs. This was the precise opposite of the truth. Cholera was a man created disease and drugs were, comparatively speaking, powerless against it. The war against cholera was the war of cleanliness against filth, and the one kind of cleanliness which was absolutely essential and in the face of which cholera could not spread or become epidemic, was purity of our drinking water. No community could have the disease that did not invite it by the habitual contamination of its water supply. Fumigation, railroad quarantines, libations and sprinklings with antiseptic pow-

ders and fluids were vain ceremonies, mere sacrifices to the popular ignorance and prejudice. They created a false security and detracted attention from the only important agent of safety, namely, purification of soil, air, and water, but, above all things, purity of water. When the people insisted upon municipalities and corporations giving them pure water, cholera, which the speaker considers a man-created disease, will become extinct and its terrors a mere recollection. The latest results of microscopical examination and bacteriological research confirmed the vast mass of evidence collected in the statistical document the speaker had before him, and clinically it has been shown that there never has been an outbreak of cholera in Europe that could not be traced to the distribution of an infected water supply. This was a matter of clinical and statistical observation. He believed that the members of the Association would see to it, as far as possible, that the people got pure drinking water. If the Association as a body put itself on record in such an important matter, its voice would be potent and he doubts not successful.

At the close of the address, Dr. Wingate offered a resolution of thanks to Mr. Hart for his able address, which was unanimously adopted; and that the address be published in medical journals *in full* and copies sent to all State Boards of Health, etc.

Dr. Henry H. Mudd, of St. Louis, then delivered the Annual Address on Surgery. He selected for his subject

SURGICAL PROBLEMS.

He said surgical cleanliness had taught us that drainage is not essential to the rapid healing of grave or extensive wounds. This advance had clearly defined a marked difference in the object to be obtained by primary and secondary drainage. No intelligent surgeon was ready to discard the use of secondary drainage in suppurating wounds, but there were many who asserted that they do not use it in fresh, clean wounds, no matter how extensive they may be. The interest in the coutroversy had been narrowed down to the use or abuse of drainage in operative wounds which were clean and aseptic. It must be awarded a new place now, when perfect cleanliness is supposed to accompany every fresh wound. Can we dispense with the drainage tube in all so-called clean wounds? He thought not. Antiseptic surgeons assert that every operative wound can be aseptic, and by a proper technique union by first intention can be secured. The conditions to be fulfilled to attain this end with a patient in fair general condition were an incised wound, a thorough hemostasis, a perfect approximation, and the immobilization of wounded surfaces.

Another problem was the possibility of securing the permanent surgical relief of hernia. A permanent cure was established in many cases in children by the restraining influence of a truss. In individual cases where this permanent retention of the herniated viscus is possible during childhood it should be given a full trial before resorting to operative measures, since they are still uncertain in their results. The cure of hernia in adults by truss wearing was an improbable event, and should not influence the decision against operative relief. Permanent recovery follows operative effort, he believes, in from 60 to 80 per cent. of the cases. Even the lower per cent. justifies continued operative effort.

The treatment of appendicitis was still an open question. The care of the individual case offered choice of lines of treatment which made most difficult a decision. The anatomical and clinical investigations of the past few years had demonstrated very clearly that the American idea of the pathology of inflammations in this region was correct.

The next thing in order was the report of the Nominating Committee, which was read by the Chairman, Dr. Truax, of New York. The committee recommended for

President—James F. Hibberd, of Richmond, Ind.

First Vice-President—John A. Wyeth, of New York.

Second Vice-President—I. N. Love, of St. Louis, Mo.

Fourth Vice-President—U. O. B. Wingate, of Milwaukee, Wis.

Treasurer—Richard J. Dunglison, of Philadelphia, Pa.

Secretary—William B. Atkinson, of Philadelphia, Pa.

Assistant Secretary—H. B. Ellis, San Francisco, Cal.

Librarian—Geo. W. Webster, of Chicago.

Editor Association Journal—J. C. Culberston, Chicago.

Trustees—J. B. Hamilton, Chicago; E. E. Montgomery, Philadelphia; E. Fletcher Ingals, Chicago; L. S. McMurtry, of Louisville.

Members of Judicial Council—X. C. Scott, Ohio; G. W. Stone, U. S. Marine Hospital Service; J. T. Jelks, Hot Springs, Ark.; J. H. Murphy, of Minnesota; J. McFadden Gaston, Atlanta, Ga.; T. A. Foster, Maine; I. N. Quimby, New Jersey.

Address on Medicine—C. H. Hughes, St. Louis.

Address on Surgery—Ernest La Place, Philadelphia.

Address on State Medicine—Geo. H. Rohe, Catonsville, Md.

Place of meeting—San Francisco, Cal.

Chairman of Committee on Arrangements—R. H. Plummer.

The nominating committee also recommended that the Secretary be paid an annual salary of $500.

It was moved that the report be adopted. Seconded.

Dr. Rohe moved to substitute Baltimore as the next place of meeting, but after ringing and enthusiastic speeches made by a member from California, Dudley S. Reynolds, of Louisville; Leartus Connor, of Detroit; H. A. Hare, of Philadelphia; Marcy, of Boston; N. S. Davis, of Chicago, and F. W. McRae, of Atlanta, Ga., the report was adopted as read.

The report of the Committee of President's Address was then read by Dr. Hibbera, endorsing in the form of resolutions, all the suggestions contained therein.

On motion the report was adopted.

On motion of Secretary Atkinson, several Canadian physicians were made members by invitation.

Dr. John B. Roberts, of Philadelphia, offered a resolution to the effect that all amendments now on the calender be postponed until the meeting next year, to be taken up on the second day of the Association meeting in general session.

Carried.

There being no further business, the Association, on motion, adjourned till Friday, 11 A. M.

FOURTH DAY, FRIDAY, JUNE 9TH, GENERAL SESSION.

The Association was called to order by President McGuire, at 11 A. M.

Dr. Walter Wyman, of Washington, D. C., read the Address on State Medicine. He selected for his subject "Extinction of Contagious Diseases." He said the history of the world shows that whole races of men and animals have become extinct. Why should not races of microbes become extinct, and certain diseases that once ravished the earth in epidemic form have so lost their inherent strength or have been so controlled in the latter part of the nineteenth century as to warrant the belief that their histories are closed, or fast closing.

With regard to yellow fever, the great period of its history was from 1793 to 1805. Formerly it was of common occurrence in Europe, the ports of Spain, in particular, suffering severally between 1801 and 1825, but there has been no disaster epidemic of this disease in Europe since that of Lisbon in 1857, thirty-six years ago. Its earlier history in this country includes invasion not only of the South, but of ports as far north as Pennsylvania, New Jersey, New York, and even New Hampshire. But to-day, though constant vigilance against its introduction is necessary, it has practically vanished from the ports of the United States.

He said since the discovery of vaccination by Jenner in 1796, small-pox, though still a stubborn foe, no longer devastated without restraint. It was now simply a matter of choice whether one shall be made absolutely proof against this disease, and the good effects of a compulsory law regarding vaccination were seen in the statistics of Prussia, in which country for six years prior to the enforcement of vaccination the deaths from small-pox averaged 85 per 100,000 of the inhabitants, while from 1875 to 1886, after the law came into force, the yearly average was but two per 100,000.

Typhus fever flourished to-day in certain parts of Mexico, and was occasionally reported from the Old World. It was always a menace where large numbers of people were crowded together with unsanitary surroundings. But it has no permanent lodgment in the United States, and the energetic and successful measures instituted by the Board of Health of New York during the past winter to suppress this disease, although it appeared in a section of the city more densely populated

than that of any other city in the world, were a striking example of what may be accomplished by proper law, energetic execution and scientific disinfection.

With regard to cholera, which was still an ever threatened menace, the history of the past few years had demonstrated most clearly its relation to filth and to contaminated food and water, both of which conditions required only the peculiar energy and love of cleanliness characteristic of the Anglo-Saxon race. In recent years the superior sanitation of England, and the more perfect quarantine surveillance of the United States, had served to protect these two nations from this exotic disease. One possible agency in the elimination of these diseases, still young as a science but not without promise, was protective inoculation. Whatever opinion may be held of Freire's inoculations for yellow fever, and Kitisato's and Haffkine's inoculations for cholera, the investigations of these and other bacteriologists in this particular field, warranted the hope that results would be attained equal in efficiency to vaccination for variola.

The Permanent Secretary read an invitation from the American Pharmaceutical Association, to send delegates to their meeting at Chicago, August 14, 1893.

The Permanent Secretary presented, from the General Business Committee, the following resolutions, which were adopted by the said Committee, and were submitted for the approval of the Association:

Resolved. That no paper shall be read by title in any section which is not actually in the hands of the officers of the Section, and that the Secretary of the Association be instructed to communicate this action to each Section.

Resolved. That the General Business Committee hereby request the officers of Sections to communicate to this Business Committee any general resolutions passed relating to the conduct of the Sections.

Resolved. That we recommend that the Treasurer and Committee of Arrangements adopt measures to secure, by courteous circular letters, as large a registration of members as possible by mail, three or four weeks before each annual meeting. Also, that one month after the annual meeting each member who has not paid his annual dues, be sent a notice that dues have not been paid, and that he be requested to remit the same; further, that similar notice be sent at each of the two succeeding months to those who do not remit; and that those who still fail to remit be drawn on at sight at the beginning of the next month, having been notified that they would be thus drawn on at the time specified.

Unanimously adopted.

From the Section of Materi Medica and Pharmacy, a resolution was offered and adopted to the effect that the American Medical Association recommend that the next edition of the United States Pharmacopœia soon to be issued be at once practically adopted by physicians in prescribing and pharmacists in compounding. It also advises the general adoption by physicians and pharmacists of the National Formulary issued by the American Pharmaceutical Association, and that the teaching medical and pharmaceutical colleges adopt these works as text-books.

Dr. J. E. Boylan offered the following amendment to By-Law number 11 relating to Sections. The first clause of paragraph 5 shall be amended to read:

"It shall be the duty of every member of the Association who proposes to present a paper or report to any one of the Section, to forward either the paper or a title indicative of its contents, and its length to the Secretary of said paper, at least one month before the annual meeting at which the paper or report is to be read." Adopted.

A communication from Dr. J. M. Toner, of the Committee on Jenner Centenial, reported progress, and asked permission to fill a vacancy in the Committee owing to the death of Dr. T. F. Wood, of North Carolina.

The report was received and permission granted.

The President announced delegates to the Eleventh International Medical Congress at Rome, and also a delegate to the American Pharmaceutical Association in the person of Dr. Frank Woodbury, of Philadelphia.

On motion the President and Permanent Secretary were granted authority to appoint other delegates, if deemed desirable.

The Permanent Secretary read the following as officers of Sections.

Surgery and Anatomy—Chairman, J. B. Roberts, Philadelphia; Secretary, F. W. McRae, Atlanta, Georgia.

Practice of Medicine — Chairman, H. A. Hare, Philadelphia; Secretary, W. H. Washburn, Milwaukee.

Obstetrics and Diseases of Women—Chairman, Joseph Eastman, Indianapolis; Secretary, George I. McKelway, Philadelpaia.

Neurology and Medical Jurisprudence.—Chairman, J. G. Keirnan, Chicago; Secretary, Frank P. Norbury, Jacksonville, Ill.

Ophthalmology—Chairman, A. R. Baker, Cleveland, O.; Secretary, L. H. Taylor, Wilkes Barre, Pa.

Laryngology and Otology—Chairman, E. Fletcher Ingals, Chicago; Secretary, J. F. Fulton, St. Paul.

Materia Medica and Pharmacy—Chairman, Frank Woodbury, Philadelphia; Secretary, F. E. Stewart, Watkins, N. Y.

Diseases of Children—Chairman, W. S. Christopher, Chicago; Secretary, Frank A. Churchill, Chicago.

State Medicine—Chairman, George W. Stoner, U. S. Marine Hospital Service; Secretary, C. H. Sheppard, Brooklyn.

Dermatology and Syphilography—Chairman, A. H. Ho Ohmann-Dumesnil, St. Louis; Secretary, L. F. Frank, Milwaukee.

Physiology and Diatetics—Chairman, I. N. Love, St. Louis; Secretary, E. Cutter, New York.

Oral and Dental Surgery—Chairman, W. H. Fletcher, Cincinnati; Secretary, E. S. Talbot, Chicago.

The President appointed as the Committee to confer with the American Public Health Association Drs. U. O. B. Wingate, of Milwaukee; Jerome Cochran, of Alabama, and J. H. Parkinson, of California.

Dr. Robert Reyburn, of Washington, D. C., offered resolutions of thanks, which were unanimously adopted.

Dr. James T. Jelks resigned from the Judicial Council because he was already a member of the General Business Committee.

On motion the resignation was accepted.

President McGuire, in retiring, thanked the Association for the kind treatment extended him and to the Permanent Secretary and others who had aided him so efficiently. He then introduced Dr. J. F. Hibberd, of Richmond, Ind., the President-elect, who assumed the chair in a felicitous manner, asking all to go to California next year and in every way to aid in building up the Association.

There being no further business, the Association adjourned to meet in San Francisco, Cal., on the first Tuesday in May, 1894.

Swallowing a Watch.

The freaks of lunatics are sometimes extraordinary, and one of the most remark able which has been placed on record recently is that which Dr. Vallow has published in the current issue of a French contemporary. A man, aged 37, was confined in an asylum suffering from hallucinations, and one day, his wife having come to visit him, he was permitted to see her. When the alloted time of the interview, according to the rules of the institution, had come to an end, his wife intimated that she would have to take her departure, whereupon the patient, judging that she wanted to leave him before the time had expired, flew into a violent passion and accused her of deceiving him. To prove, however, the truth of her statements, she drew out her watch and showed him the time, but as soon as the patient saw the watch, he suddenly seized it in his hand, tore the chain from it, and, putting it in his mouth, swallowed it. The medical officer of the asylum was summoned at once, but the patient in no way appeared to have suffered from his curious freak. On examination of the stomach nothing could be felt, and it was at first believed that after all the watch might not have been swallowed. However, all due precautions were taken, and on the sixteenth day the watch arrived per naturalem viam. It was a silver watch measuring about two inches and a half in diameter, exclusive of the ring, and about half an inch in thickness.—*Medical Review.*

"I want some ribbon," she said, "to trim a baby basket, and I am undecided about the color." "Baby basket!" said the clerk briskly. "Oh, yeller, by all means." "Yes," she said, "but this is for a baby dog." "All right," he said, "then purp'll do nicely."

It is hard to find a preacher who does not think he can do most for the Lord where the pay is highest.—*Ram's Horn.*

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SATURDAY, JUNE 24TH, 1893.

EDITORIAL.

DRAINAGE NEEDED.

The *Virginia Medical Monthly* for June, contains a paper recently read before the New York Obstetrical Society, in which the aspiring writer displays more skill as a scribe than he does as a surgeon. The paper is a fair sample of the genius of the *library* surgeon, but from the standpoint of *practical* surgery the whole production is marked with crudity and inexperience, superficial observation and illogical conclusion. On the strength of a few abdominal sections performed, the author delivers himself of a screed on drainage. In the paper there are some truths that have long since become platitudes among modern surgeons, and there are some statements which, we venture to say, no one but the author himself has ever found to be true. We note some of these statements and follow with a few comments:

1. "Those who drain still cling to washing out the abdomen, to chemical antisepsis and the drainage tube."

2. "If you irrigate, you must use the tube to remove the fluid you thus introduce."

3. "If warm sterile water be introduced and is followed by the injection of pathogenic germs infection takes place."

4. "If the drainage tubes are introduced, it has been proved impossible to avoid post-operative infection without the use of antiseptics. So a clean operation is rendered foul by them."

5. "The only sepsis the drainage tube removes is that which is introduced by the operator and the only irritating fluid drained away by it is what he has put in."

6. "The results of the drainage are: Possible infection of the wound; probable ventral hernia; inevitable binding together of the intestines by adhesions."

7. "It is utterly impossible to remove these growths and close the belly, unless we see what we are doing, do a perfectly aseptic operation without the use of strong

chemicals, and catch by means of gauze, any septic contents of sacs evacuated."

8. "Some cases *must be drained* but not by a small glass tube."

9. "The convalescence of drainage tube cases is usually febrile, showing that infection has occurred."

1. "Those who drain do not now nor did they ever cling to antisepsis. The two leaders in abdominal work, who stand for drainage in England and America, Lawson Tait and Joseph Price, have always preached the doctrine of surgical cleanliness only. No men have less use in surgery for chemicals of any kind than do Tait and Price.

It may be that the author of the paper in question has confined his observation to New York alone and has never got far away from home. If, in New York, those who drain use chemicals, he might spend a few weeks in Philadelphia to great advantage. While making his observations he will also find that those who drain do not always irrigate.

2. Those who irrigate do not necessarily use a tube to remove fluid thus introduced. Nothing is more common than to see Joseph Price leave the belly full of clean water and close the wound without drainage, and other operators do likewise.

3. This third statement, if true, has no bearing or weight because no one but a bungling operator will put infection into the belly either before or after an operation. This may be a discovery valuable to the author in his work, but it will influence others very little indeed. Especially one to whom an aseptic technique has become a habit.

4. The fourth quotation is not true for Philadelphia and, if the author has found it true in New York, he has certainly passed very little time among the best operators, and is giving his own experience. How one who can do a clean operation will befoul it by putting in a tube, unless he puts in a dirty one, is a conclusion that all must reach who reflect for a moment.

5. A clean operator does not put in sepsis nor does he put in irritating fluid. Clean hands, clean instruments and clean water are the means used by all successful operators; and those who drain have the largest experience and the lowest mortality as yet on record. Again we must say to the author of this paper, if those who drain in New York are doing such dirty work come over to our city and see something clean—it will give you new ideas in drainage.

6. The results of drainage are, in our experience and observation, absence of infection, more ease and comfort, greater security against hemorrhage, absolute lack of influence in the causation of hernia and a positive lessening of the probability of adhesions.

7. To one of little experience and a poorly educated hand, it may be necessary to see. But the best operators gain nothing by standing the patient on her head. Why chemicals are more needed after or during an operation in the ordinary dorsal decubitus than when done in the Trendelenburgh position it would puzzle any operator to determine.

8. After stating that the cases he reports include almost every variety, and that they show the utter uselessness of drainage, he contradicts all that he has before said by admitting that some cases *must be drained*. Well, this is all that any advocate for drainage claims. That *some cases must be drained*—the judgment of the surgeon alone determining which ones.

9. In the experience of those in Philadelphia who practice drainage they usually have less trouble than simple cases that are not drained. The convalescence of drainage tube cases is hardly ever febrile. A series of difficult cases with drainage suffer less and have less fever than a series of much simpler cases without the tube.

There is something wrong in the work or the observation of a man who formulates such statements as that numbered 9 above.

As to his statements on vaginal incision and drainage for pyosalpinx and ovarian abscesses, they are correct enough if they are applied. No man in Philadelphia at least, who advocates abdominal drainage, ever thinks of incising and draining *per vaginam*. That idea is peculiarly a New York product, and was elaborately set forth last year by a prominent New York operator, who was unable to defend it against the onslaught of his critics.

ABSTRACTS.

OUR DISPENSARIES, HOSPITALS, PHILANTHROPY, FRAUDS, AND THE NECESSITY OF MEDICAL REFORM.

Dr. Criado, in an address delivered before the Kings County Medical Association, in speaking on "Our Dispensaries, Hospitals, Philanthropy, Frauds, and the necessity of Medical Reform," presents the problem which most obviously and inevitably suggests itself to us at an earlier or later period, which we conceive but carelessly and wilfully neglect from committing to our united judgment, and for which reason our most indispensable services are generally welcomed with diffidence, our knowledge judged frivolous, and the profession generally as mostly composed of half-witted, antiquated, ceremonious extortionists, notwithstanding that *in articulo mortis* we are deemed *the most desirable* and *trusted friend*. The doctor respectfully suggests that the medical profession should awaken from the perpetual sluggishness and apperent lassitude or indifference which have heretofore characterized it, with the object of *enacting, promulgating*, and if necessary, of *having legislated* the reform by which we might overcome in the most judicious and honest manner the difficulties that confront us, not alone in our own behalf, but in that of our deserving families and of the inconsiderate public. With this object in view, and in the hope that he might energetically stimulate the interest and *good judgment* of every thoughtful member of the medical profession, offers the following suggestion, to wit:

With reference to our dispensaries:

1st. That no physician should be deemed qualified to serve in any dispensary unless he or she shall have pased a fair and honest competitive examination, and that said appointments should receive due consideration in their respective order of merit.

2nd. That physicians thus qualified and appointed to serve, should be justly remunerated by the *so-judged charitable* and *magnanimous* dispensary trustees, from an adequate city appropriation thus directed by special Act of Legislature, or otherwise.

3d. That the period of said appointment should not exceed three years.

4th. That at the entrance hall and in every dispensary room occupied by physicians, a large placard should be displayed in a conspicuous place, making it known that the institution is intended for the care of the destitute and poor *only*, and that all persons applying thereto for gratuitous medical advice possessing or being able to realize the sum of $250, or more, will be deemed guilty of fraud and misrepresentation, and prosecuted accordingly.

5th. That amongst other things, it should be the duty of all dispensary physicians to ascertain by direct questions the circumstances of every individual applying to them; to enter the replies to such inquiries in whatever ledger be appropriate, together with the name, address, nationality, diagnosis, treatment, etc., etc., of said applicants, and to assist in the prosecution of all deemed guilty of fraud and misrepresentation.

6th. That any physician convicted of soliciting dispensary patients for his

private practice should be dishonorably discharged, and henceforth disqualified from serving *in any despensary or hospital.*

With reference to our hospitals:

1st. That no physician should be deemed qualified to serve in any hospital unless he or she shall have passed a fair and honest competitive examination: that said appointments should receive due consideration in their respective order of merit, and that it be required that all candidates shall have graduated at least three years previously.

2d. That physicians thus qualified and appointed to serve in hospitals for *non-contagious diseases* should serve without compensation, and that the period of appointment should not exceed three years.

3d. That the physicians thus qualified and appointed to serve in hospitals for *contagious diseases* should be justly remunerated for their services, and that the period of appointment should not exceed eighteen months.

4th. That the appointment of house surgeons or physicians in hospitals for *non-contagious diseases* should be continued under the present system, in consideration of board and lodging.

5th. That physicians appointed to serve as house surgeons or physicians in hospitals for *contagious diseases* should be justly remunerated for their services.

The advantage offered by the aforesaid suggestions might concisely be summarized as follows, to wit:

1st. That *old*, *young* and *recent medical graduates* would be equally privileged to enter into an honest, competitive examination for appointment in any dispensary, and thus be enabled to have the opportunity to earn the just remuneration, and oftentimes required contributive, pecuniary assistance for the period of three years.

2d. That by eliminating the well-to-do imposters from our charitable dispensaries, not only would we be enriched by at least forty per cent. of the amount that we are continuously defrauded of, but moreover said dispensary physicians would be *enabled* to devote *the proper attention* and *time* due to the deserving poor with the least possible speculative temptation of soliciting dispensary patients for their private practice.

3d. That the requirement of a competitive examination for appointment in any dispensary, or hospital would readily overcome the friendly tendency of *favorism* or *cliques*, and more so, of *monopolization*, inasmuch as it is not only detrimental in general to the profession, but likewise to the community at large, that physicians and surgeons, who have *thus* been appointed five, ten, twenty or thirty years ago, should withal persist in retaining said appointments *forever and amen*, until the day of judgment. There is no acceptable reason or excuse whatsoever for our present forbearance of such a monopoly, inasmuch as in *every instance* practical experience and continuous observation would certainly tend to improve the knowledge of the *otherwise most ignorant* who become thus *undeservingly* associated with a certain dispensary or hospital, or with as many more as possible, attaining reputation and *popularity through the advertising medium of the freely distributed annual reports of said institutions.*

4th. That the practical knowledge attained at a hospital in the capacity of physician and surgeon during the appointed period of three years, should be deemed an adequate compensation for services rendered in hospitals for *non-contagious* diseases.

5th. That physicians and surgeons desirous of prolonging their term of dispensary or hospital service, for reasons which might be best known to themselves, would be necessarily obliged to undergo *another competitive examination,* and thus deservingly and honorably secure the appointment which was openly tendered to the most worthy and successful competitive candidate.

6th. That with the very incomplete enumeration of the facts and suggestions herein *submitted to our united consideration and judgment*, we might possibly become less *promiscuous* in our philantrophy; more *conscientious* in all our charitable undertakings; *wiser* inour own behalf and for the well-being of our families; more *friendly* and *honest* towards one another in our professional intercourse and good will; and *henceforth*, *deserving* of the *full confidence* of the community, by not permitting ourselves to be led astray by the few monopolists who have profited at the expense of our apparent simplicity.—*The Brooklyn Med. Jour.*

THE SURGERY OF CHILDHOOD.

F. H. GIBBY, M. D., Nashua, N. H.

It is as true in surgery as in medicine, that the practitioner who does not seek to understand and appreciate the distinguishing preculiarities of diseases and accidents, as they affect children, narrows very much the field of his usefulness; and however thorough his general knowledge, or however great his practical excellence as a surgeon, has much yet to learn.

If writers on the medical diseases of childhood justly insist, as preliminary to all other considerations, upon the necessity of care, gentleness, and tact, in the examination of infantile diseases, and the proportionately greater attention which is to be paid to the purely objective symptoms of disease in these young subjects, these considerations are, *a fortiori*, indispensable in the surgical maladies of early life. For, except in the case of unconscious infancy, how important it is that the visit and examination of the surgeon should be conducted with such kindness, and delicacy, as to disarm the fears of the patients; and, if unnecessarily alarmed and excited, how completely may their cries and struggles defeat the object of the visit or examination. Let us begin with a real sympathy with our patients, which cannot be hard to do, for who does not pity and feel for the sufferings of children? It seems to me, too, that we have a duty also in the education of parents; we ought earnestly to rebuke the the wretched folly that some parents are guilty of, in making the doctor a terror and a bugbear to their children; telling them if they are naughty the doctor will cut their ears off, and such like abominable practices.

With regard to the importance of objective symptoms, how idle and useless are many of the questions usually addressed to young children; as for instance, moving a diseased or injured limb, or making pressure to discover the existence of tenderness, and asking "does that hurt you?" The patient, either puzzled or terrified at the process, will often answer yes, whether it hurts him or not; but watch the face; it don't lie; children's faces never do; its answer is alone reliable, and to be depended on. Above all things, in examining a case of surgical disease or injury in a child, particularly one over a year old, time and patience are absolutely necessary; he who is in a hurry, or who has not almost unbounded patience with the unreasonable fears and fancies of little children, will be constantly liable to mistake, and must suffer many anxieties and fears, which a little more long-suffering would have prevented.

As germane to this subject, allow me to insist upon the very great importance of good *nursing*, in the surgical diseases and operations of childhood. Nothing whatever can take the place of the unremitting attention of a mother, or other affectionate nurse, who is used to children, for the first few days after any injury or operation. This should be a foremost consideration with the surgeon, and no pains should be spared to obtain it. For want of it, all his skill and efforts may be completely neutralized, and rendered of no avail. Especially is this of importance in those operations, not uncommon in early life, where everything depends upon obtaining union by first intention, as it is ordinarily called.

Among the surgical diseases peculiar to childhood are all the malformations, such as hare-lip, imperforate anus, nævus, supernumerary fingers, club-foot, spina bifida, etc., together with croup, rickets, congenital syphilis, a certain form of enuresis, cancrum oris, noma, some forms of hernia and hydrocele, certain tumors, and some peculiar accidents, such as separation of the epiphyses, etc. There is, moreover, a large class of cases which practically belong here, although it is not true that they occur only in childhood, but they are more frequently met with at that period of life, such as enlarged tonsils, prolapse of the rectum, morbus coxarius, certain forms of inflammation of the eye and ear, foreign bodies in the air passages, ear, nose, etc.

It is particularly worthy of notice here, that what are called the diathetic tendencies, such as the scrofulous, tuberculous, syphilitic, rachitic, and so on, are peculiarly active in early life, and modify many of the diseases that are not directly

attributable to them, and some of them cease to exert their influence after the period of puberty. In addition to this many diseases common to all periods of life, such as cancer, diabetes, etc., exhibit a different form and run a more rapid course in early life. This difference in form is mainly due to the greater activity and rapidity of the processes of nutrition and interstitial change in children; and while its influence may only be to aggravate and hasten the course of malignant disease, in many other cases it renders recoveries and operations possible in children that could not otherwise take place. In the pathology of childhood the great fact is never to be lost sight of that nutrition is in excess, and whereas the adult has only to repair the waste that is perpetually going on, to hold his own, as we may say, the child has to do this too, and grow beside; to build the new as well as repair the old.

Children's vitality, of course, will not sustain an equal shock with that of more advanced life; their nervous system is much more active and susceptible, and may be utterly prostrated by a blow that the tougher and less impressionable adult would easily recover from. But unless suddenly lowered beyond the rallying point, there is really scarcely any limit to the repair that may be expected to take place, there is so much life in them. From these considerations it would seem to follow theoretically, and I fully believe it to be practically, true, that they are the best possible subjects for surgical operations. At any rate they certainly escape many of the sources of danger to which adults are exposed; their constitutions are not broken down by previous excesses or disease, or insidiously undermined by time. Whether it be owing to this, and the purity of their blood and vital fluids or not, statistics show plainly that children escape in larger proportions than adults from both the primary and secondary accidents of operations.

One very important circumstance in favor of young children, when the subjects of operation, is their freedom from mental shock. They are spared those tortures of anticipation which in adults are often so depressing, and have even been known to lead to fatal results, and which even the boon of anæsthesia has not wholly abolished.

There are two special dangers to children from operation which have been spoken of, one of which I regard as apocryphal, and the other as of great importance. The first of these is convulsions; this I was taught from my early reading and tuition to regard as a fruitful source of danger, but I have never seen it in a single instance, and have hence been led to believe that it is very unusual, and the fear of it, more the result of tradition, and *a priori* theorizing, than of actual observation. Perhaps this, too, is one of the terrors which chloroform has banished from modern surgery. The second danger referred to, is hemorrhage, and its consequent depression; this is really the gravest source of immediate danger in operations upon young children. We all know how poorly these little subjects bear the loss of blood, how cautiously the physician resorts to depletion, either general or local, in them. No pains ought therefore to be spared by the surgeon in avoiding undue loss of blood. If this is done, there is no doubt that they are the best possible subjects for operation. Inflammation scarcely ever surpasses the degree necessary for conservative and reparative processes; pyæmia is much less to be feared than in older patients; and, if you can get a child off the operating table alive, it always has a good chance to recover.

I have not spoken of pain in relation to operations on children, simply because it does not really enter into the question at all. It ought always, I think, to be prevented. Great as are the triumphs of anæsthetics in other departments of surgery, nowhere have they been of such signal benefit as in the surgery of childhood. Of the anæsthetics in use, chloroform ought, I think, to be always preferred in children; it acts more promptly, avoids that long period of struggling which ether always gives rise to in children, who never breathe the anæsthetic in quietly at first, and only struggle during the stage of excitement which immediately precedes anæsthesia, but fight against it from the first; it is less likely to produce nausea or vomiting, and thus saves time and, moreover, I believe, in children it is perfectly safe. I have never seen the least unpleasantness in its use in them; to be sure I have heard of fatal cases, but in all of them I have reason to believe that proper precau-

tions were not taken; for when I say that I regard it as perfectly safe, of course, I mean when administered carefully.

There is one point worthy of mention with regard to the administration of chloroform in children, and that is, that owing to their crying and struggles, they are very apt, after holding their breath for a second or two, to take a very long, deep, inspiration, and thus the anæsthetic is inhaled in very unequal, and often in very large doses. On this account I object to cones, inhalers and all similar contrivances for children, and think care should be taken that the cloth, or handkerchief, should not be too thoroughly saturated. In case of asphyxia or other accident, during the administration of chloroform to children, the remedies indicated, are the same as for adults; but in addition, I regard immediate mouth to mouth insufflation, notwithstanding all that has been urged against it, as a very valuable expedient.

With regard to the age at which chloroform may be given to children there is no limit whatever; it may be safely used at the earliest period of life .Not only may it be given at any age but also for any operation, with the simple exception of removing the tonsils. So, that, as far as my experience and judgment go, I would say that chloroform is indispensable in the surgery of childhood, and all but of universal applicability. Of local anæsthesia I have nothing to say. I have never tried it in children and presume I never shall. It is likely to frighten them. The application of cold, either by freezing mixtures or ether spray, causes some pain; and chloroform being so safe and certain, there is no inducement to make use of an inferior method.

But chloroform in its application to the surgery of childhood, is by no means limited to the performance of operations; in the reduction of dislocations, the diagnosis and adjustment of fractures, the dressing of painful sores, such as burns, and all examinations for purposes of diagnosis, which are likely to cause pain, it ought generally to be used. I have often been very much gratified, when called to cases of fracture in children, where before even looking at the accident I have administered chloroform and made my diagnosis and completed the dressings under its influence, to see the confidence and ease with which they allowed subsequent examinations and dressings, by the doctor who had never hurt them, while on the other hand, if this had been neglected, and at his first visit the surgeon had given pain, perhaps very severe pain, to the little patient, every subsequent one is almost sure to be an unpleasant struggle. Not only is the comfort of the little sufferer involved in this matter, but the good name of the surgeon as well, for in many cases it is simply out of the question, to make a correct diagnosis while the patient is fighting and resisting with all his might.

With regard to operations upon children, those who appear to be very delicate and unfavorable subjects not unfrequently bear operations exceedingly well and indeed improve immediately upon their performance; the fact being, that quite often the ill health and cachexia, which seems to forbid operation, are really the voice of nature calling loudly for it, and are caused simply by the disease it is intended to relieve. Nothing can be more unscientific and injurious than the very loose way in which pale, unhealthy, emaciated or anæmic children, are pronounced *scrofulous*. It is, too oten,- simply a word, in the ears of the laity, of mighty import, and one which, to them, explains any and every condition of disease, and is hence too often seized upon by the surgeon to satisfy their importunities, or, as a convenient cloak for his own ignorance or indolence.

There is a fact that still remains to be mentioned in this connection, one that is not generally fully appreciated, and that is, that children bear confinement to bed, whether from accident or disease, surprisingly well. Only let the little one be made comfortable and be kept properly amused, and it will thrive and grow fat under a confinement which, from the sickness of hope deferred, and the unreasonable impatience of older years, would reduce an adult almost to death.

Among the surgical accidents that offer peculiar features in childhood, none do so more strikingly than fractures. There are two species of fracture peculiar to early life, viz.: diastasis, as it is called, or separation of the epiphyses of long bones, and green stick or incomplete fracture. The subject of diastasis is a very interesting one, from the comparative

rarity of the accident, and from its difficulty of diagnosis, which is always great, sometimes almost insuperable. It is a subject, which even now, is very imperfectly understood, and offers a fair field for further study and research.

Green stick fracture, as it is aptly called, is a species of fracture to which the bones of children are specially liable, from their elasticity and deficiency of earthy material. It includes most of the cases of so-called bending of the bones, and it was, and still is, stoutly maintained by some that this bending is *always* accompanied with the rupture of some of the fibers of the bone, and that *every* such bending implied a partial fracture; but the experiments of Hamilton have demonstrated that the bones of young animals may be bent and straightened again without any perceptible fracture, and so henceforth, however rare we may be consider it, we shall be compelled to admit that a bone *may* be bent without being broken.

Without dwelling on the pathology or treatment of these injuries, I wish to call attention to two practical observations. First, in attempting to restore the contour of a bone thus bent, if much of its substance has been broken through, we are very apt, if we are not careful, and may even with all possible care, break the bone entirely through, and make the fracture a complete one. I do not know that there is any particular misfortune in this, but it is as well to be aware of its possibility, and to warn the parents of it, who may otherwise think something dreadful has been done.

The second point seems to me a very important one, and, that is, that these bent bones should be *thoroughly* straightened, even at the risk of breaking them quite through. If this be not done at first, it will hardly be done afterward, and, if ever so slight a curvature be left, it will increase as the bone grows, and be a perceptible deformity. Do not be deceived into the notion that it will pass away in time; that the child will grow out of it; there are things that nature fashions, moulds over, or removes; there are surgeon's blunders that she mercifully and kindly hides and puts out of sight, but this is not one of them. There is, however, an apparent aggravation of such a curvature arising from the deposit of provisional callus over the seat of fracture, and along its convexity, which *does* disappear, as the callus is absorbed, and, in some cases, this callus is so abundant, and so disposed, as to simulate in appearance a curve, where none really exists.

So much for green stick, or incomplete fractures,—there is another class of fractures which, though not peculiar to, are very common in childhood. I allude to fractures in the vicinity of the joints; in many of these cases diagnosis is very difficult indeed, and if swelling sets in at once, and is considerable, as it sometimes is, the diagnosis may be utterly impossible.

As the great object of treatment in all these cases must be to preserve the motions of the joint, so I believe the principal means toward this end are keeping the splints on for a very short time, and beginning passive motion very early, and, if need be, using it very perseveringly. This must be done by the surgeon; according to my experience it is most unsafe to trust it to parents or friends; if done thoroughly it will hurt more or less, and their firmness, under such circumstances, is not to be depended on. At the very best, these cases are perplexing and unsatisfactory, and very apt to result imperfectly; no doubt we can all recall cases in which a recovery was obtained without any deformity or defect of motion, but I am afraid this is not the rule.

It is singular, at least it has always seemed so to me, how little correspondence there frequently is between the deformity and the lameness. I have now in mind two cases of fracture, apparently of one of the condyles of the humerus, both occurring in early life, both I believe well treated, one of them by myself; one has recovered with scarcely noticeable deformity, but with very serious interference with motion; in the other, the elbow is most painfully deformed, all out of shape, as we say, yet the joint is almost as useful as the other.

With regard to fractures in general, we all know how quickly they unite in childhood, and what good results are generally obtained; but, although these accidents are much more simply and sensibly treated than they used to be, I fear we still harbor a tendency to make our appliances too confining and irksome in young children, and often retain them too long. The integument in these young patients

is very delicate and sensitive, and even when not actually abraided, is often rendered acutely painful, by strict, or long retained bandages, *particularly* if they are *wet.*

The fact is well known that children may sustain blows on the head, as a general rule, without much liability to fracture, and without the serious consequences from concussion or compression which are common in adults. But there is one result from such injuries which is almost peculiar to them, and that is convulsions. Twice have I had the ill luck to make light of such injuries in children, for the sake of quieting parental fears, and they have been followed by convulsions, and as this is always a dreadful thing to parents, the mistake was not a trifling one. They both recovered, to be sure, but I gained nothing by my want of care in the prognosis.—*Mass. Med. Jour.*

Salt as a Sweetener of Sugar.

Sugar and salt are sometimes held to be incompatible or antagonistic in their action on the organs of taste, but it is a common social experience that the addition of the slightest dash of salt adds flavor to sweet coffee, and sugar-cured hams have their own reputation, while meat and vegetables cooked "sour and sweet" are a favorite delicacy in Germany. Professor Zuntz, at the Physiological Society of Berlin, definitely explained the making of sugar sweeter by the addition of salt. From his experiments, he finds that if to a solution of sugar there be added a slight amount of salt-and-water, so weak that it excites no saline taste, the result is extra sweetening of the sugared water. The weakest of quinine solution is said also to produce similar results. The explanation given of the above seeming in congruity is that the ever so feeble saltness bitterness imparts an increased sensibility to the sensation of taste by the simultaneous stimuli, and hence an appreciation of additional sweetness.—*British Medical Journal.*

Lifemay be considered extinct (*Lyon Medicale*) if, when a needle is thrust into the skin of a corpse the puncture remains open, just as it will in a piece of leather. If life still remains, the little orifice is closed by contraction of the skin.

Amaurosis.

In functional amaurosis, Nagel gives

℞
Strychniae sulph..... gr. j.
Alcoholis..... ʒ.j.
Aquae..... qs. ad. xiv.

M.
Sig. A teaspoonful three times daily before meals.

—*Lancet-Clinic.*

Hiccough.

Dr. Whelpley recommends the following:

℞
Subnitrate of bismuth..... grs xlv
Oxide of zinc,
Valerianate of zinc,
Powdered calumba.....āā ʒj
Powdered opium..... grs.jss
Spirit of anise to flavor.

M. Sig.—This dose is half a teaspoonful in a wine glass of sweetened water.

—*Ex.*

Diphtheria.

A local application which meets with almost universal approval is Gaucher's mixture:

℞		GRAMMES.
	Acidi tartarici.....	1
	Acidi phenic.....	5
	Alcohol.....	10
	Ol. ricini.....	15
	Camphor.....	20

M.

This is applied to the throat every two hours, being rubbed into the membrane (as much as possible of which is first carefully stripped off) pretty thoroughly, hemorrhage being carefully avoided. Ten minutes after each application a nasal douche of one-half per cent of phenic is given, the child's head being held bent over a basin to prevent the liquid being swallowed:

Other favorite formulæ are:

℞		GRAMMES.
	Acid phenic.....	5
	Alcohol.....	10
	Camphor.....	20
	Glycerinae.....	25

M.

—(*Hutinel*).

℞		
	Acidi salicylic.....	1
	Infus. eucalypti	60
	Glycerinae.....	30
	Alcohol.....	15

M.

—*Simon in Boston M. and S. Jour.*

A Natural Supposition.

Mr. Tulkinghorn—"There is a very fine picture of our minister in to day's paper."

Mrs. Tulkinghorn—"Indeed! What has he been cured of?."

Timid Lady—"Oh, doctor, do you think cholera will get a foot hold in America?"

Doctor—"Certainly not, madam, that isn't the kind of a hold cholera gets in any country."

CURRENT LITERATURE REVIEWED.

THE VIRGINIA MEDICAL MONTHLY

for June. Dr. R. H. Garthright contributes a paper on

Puerperal Fever—Its prevention and treatment.

The author holds that if the accoucheur will exercise rigid antisepsis in the treatment of his patients, he will rarely be called upon to treat a case of puerperal septicæmia.

We should look at a woman about to be confined as we look at any case of surgery, for, when she has given birth to her infant she is often found bruised and lacerated. Put the parturient canal in an aseptic condition at the onset of labor. Prevention is easier than curing.

There is no treatment of puerperal septicæmia superior to the repeated cleansing of the parturient canal with hot bichloride of mercury injections,—keeping up, if possible, the lochial discharges, quinine in full doses during the first stages, in tonic doses later, morphine, turpentine stupes over the abdomen, digitalis as indicated, digestive remedies, stimulants, and plenty of good nourishing food.

The author reports two cases of puerperal fever which were due to neglect of strict antisepsis. In this connection he reports a case of the little daughter of one of the patients who had an open wound on her wrist, caused by a fall against a hot stove. The child was accustomed to get under the bed covers with her sick mother and remain there for an hour or two each day. The puerperal poison was absorbed through the wound and the child barely escaped with her life. The arm to the shoulder was inflamed and terribly distended. The fever was high; all of her symptoms resembling those of her mother.

Dr. W. H. Link discusses the subject of

Appendicitis,

reporting two cases operated on by Drs. J. and M. Price. In one of the cases there had been several attacks of inflammation, each one apparently cured by medicinal treatment. Dr. Link points out that this may constitute a grave source of error in the statistics of appendicitis, since each of the attendants might report the case as cured without recourse to surgical measures. The author urges operation as soon as the diagnosis is made. If the operation is postponed, then a very good time for surgery is between two attacks, or in the stage of quiescence.

Any pain coming on suddenly and felt in the right iliac region is to be suspected as an appendicitis. If there is tumefaction and hardness at or before the onset of pain and fever, it is most likely to be simple impaction, or accumulation of fæces at or near the head of the colon. If tumor is absent at first, and the fever runs higher as time passes, and tumefaction deep seated comes on gradually, the fever pains and the tenderness keeping step with it, we may almost unhesitatingly pronounce in favor of an inflammation at the head of the colon or an appendicitis. With this condition, an early resort to surgery will give the most gratifying results, and no further delay is permissible if the welfare of the patient is to be considered. Whether or not the appendix should be removed will depend upon the conditions found. If adhesions are not plentiful nor strong; if the head of the colon can be brought in sight with but little violence; if the appendix itself can be readily found—by all means let it be removed. But if opposite conditions obtain, then the interests of the patient are best subserved by simple irrigation, gauze packing and drainage, leaving an open wound to close by granulation.

Dr. Clifton Mayfield contributes a paper on

Cerebral Hemorrhage in Children.

As far as *preventive treatment* is concerned, the indications are very plain. Prevent injury to the meninges by avoidance of prolonged pressure upon the head of the child during labor. Pressure by forceps, in capable hands, is likely to do less injury to the head than will follow its prolonged compression in the pelvis, especially in breech cases. Likewise avoid, as far as possible, cerebral congestion, the result of compression of the cord or too long delay in establishing respiration.

In the attack, the convulsions add greatly to the danger by augmenting the already existing congestion, thereby increasing the hemorrhage. To control the spasms, chloroform is indicated as the most efficient agent; or, in its stead, chloral may be given. During this time, but more especially after the subsidence of the convulsions, the bromides in full doses are of service in preventing a recurrence.

Thorough evacuation of the bowels and absolute quiet, with counter-irritants to the limbs, cups or leeches to the neck, and cold continuously applied to the head, comprise about all the remedial agents at our command that will prove of service during the acute onset.

In the after-coming stage of palsy, attention must be given to the general health. Cod-liver oil and tonics, with laxatives when necessary, are all that will be needed in drugs, except when syphilitic treatment is indicated. Electricity, massage, and rhythmical gymnastic exercise will often work wonders in restoring tone to the affected limbs. When the contractures are marked, some form of mechanical appliance will be necessary to place the limb in a position to make its use possible. Mental defect must not be overlooked, lest efforts to force a mind, not equal to the tasks put upon it, may retard, rather than hasten, intellectual development.

The Uselessness of Drainage in Abdominal Section for Tubal Diseases, etc.,

is the title of a paper by Dr. Wm. R. Pryor. After discussing the tolerance of the peritoneum to foreign bodies he says:

The only sepsis the drainage-tube removes is that which is introduced by the operator, and the only irritating fluid drained away by it is what he has put in.

The results of the use of the drainage-tube are—

1. Possible infection of the wound.
2. Probable ventral hernia.
3. Inevitable binding together of the intestines by adhesions.

He strongly urges the Trendelenberg position, as by its means the operator can see what he is doing and does not have to trust entirely to the delicacy of his touch.

Some cases must be drained, but not by a small glass tube. Such are cases where breaches are made into sound tissue, where the unclean vagina or bowel is opened, and cases which have been previously tapped. With the possibility of seeing what we are doing, such accidents are rare.

Dr. Henry W. Stelwagon contributes an article on

Alopecia Areata; Vitiligo; Herpes Zoster; Pruritus;

being the notes from ten years' service at the Philadelphia Dispensary for Skin Diseases. In the cases of alopecia, the treatment was in every case, both by constitutional and local medication; the former in the line of improving the nerve tone, with such remedies as arsenic, strychnia, phosphorus, quinia and iron; and the latter having in view the production of a mild, persistent irritation, with such applications as sulphur ointment, oleate of mercury ointment, five to twenty per cent. strength; naphthol ointment, a half to two drachms to the ounce; tarry oils and salves; weak chrysarobin ointments, ten to forty grains to the ounce; tincture of cantharides, and the like.

In regard to vitiligo, no new information bearing upon etiology was discoverable. In one or two cases, the disease retrogressed slightly while under observation. Treatment consisted mainly of such alteratives as strychnia, phosphorous, arsenic and iron, pilocarpin was tried, but with no perceptible effect. In herpes zoster, the object of all local treatment was the protection of the affected region, and consisted variously of the free use of a dusting powder, over which was placed a layer of cotton; of salicylated oxide-of-zinc ointment applied constantly as a plaster; and in those instances in which the disease was of an abortive type, the lesions scarcely reaching active vesiculation, a simple covering of cotton or patent lint was advised. In sore or neuralgic cases, an ointment containing small quantities of opium and cocaine was spread over the parts. In a few cases, the protection was afforded by coatings of flexible collodion.

As to the etiology of pruritus, in a few instances, diabetes or albuminuria was the suggestive factor; in many, gastric and intestinal indigestion; in some, the lithic acid diathesis; but, in the large proportion of cases, it was difficult to find any explanation of the pruritus beyond the acceptance of some obscure functional perversion of the cutaneous nerves.

Constitutional treatment was varied according to indications; in many cases, free action of the bowels, some regard to diet, and the administration of an alkali, such as the sodium or lithium salts, had a curative influence. Small doses of atropia sometimes acted quickly. Among the most valuable of external applications advised, may be mentioned—carbolic acid lotions, thymol lotions, resorcin lotions, liquid carbonis detergens diluted with several or more parts water, and alkaline lotions. In those cases of pruritus of the legs, in which the skin was harsh and dry, relief was afforded by mild salicylated ointments. In the localized forms, cocaine and menthol ointments and lotions were of value.

Dr. F. B. Bishop discusses the subject of

Treatment of Organic Stricture of the Urethra by Electrolysis.

He states that after a constant experience of eight years, he is thoroughly convinced that the treatment of organic strictures of the urethra by electrolysis is the best method known to the profession. It requires an experience gained by daily practice, great gentleness of manipulation, and lots of patience and perseverance. He reports two cases in support of the claims of his paper.

Dr. Wm. C. Dabney contributes a paper on

Neuritis,

discussing its frequency, causes, symptoms, diagnosis, prognosis and treatment. The most common cause, in its milder forms, is cold or exposure. A second cause is found in injuries of a nerve. Another cause is diabetes, but as a general thing the sciatic nerve only is affected and the cases are considered neuralgic. The diagnosis of neuritis from neuralgia is sometimes easy and sometimes extremely difficult. The distinctive features are (1) tenderness along the course of the nerves in neuritis, which if present at all in neuralgia is far less marked; (2) the motor, electrical and trophic disturbances which are absent in neuralgia, are often present in neuritis; (3) the persistence and long duration of neuritis. The diagnosis from anterior-poliomyelitis is readily made by the absence of sensory disturbances in the latter affection. From myalgia, it can be generally distinguished by the absence or much less degree of pain on movement in neuritis than there is in myalgia. Furthermore, in myalgia there is no tenderness along the course of the nerves. The treatment is chiefly addressed to securing rest and relief from pain. Rest is of the greatest importance.

In the rheumatic cases the salicylates or salol and counter-irritation have given better results than anything else. When the pain is severe, galvanism sometimes gives relief. *Hot* applications are often grateful, but care should be exercised in their employment. The modern analgesics, antipyrin, acetanilide, phenacetine, etc., will often give relief, but frequently only when large doses are used, and then are not perfectly safe.

After the acute stage has passed, tonics are of great benefit.

Massage is also useful in these cases, but he doubts whether electricity is of much value at any stage of the disease, except in the form of galvanism in the early stages, to relieve pain.

Dr. Henry L. Myers reports "A Case of Syphilitic Iritis with Complications—Recovery." The treatment persued was as follows:

A 1 per cent. solution of sulphate of atropiæ was dropped into the eyes several times daily. Hot applications in the form of poultices and hot baths were used at short intervals during the day. Inunctions of mercurial ointment were practised night and morning until the patient was brought to a point a little short of salivation. Increasing doses of iodide of potash were administered three times daily, to toleration. The bowels were kept active with salines.

Dr. Luther Sexton reports a case of "Dysmenorrhœa cured by Dilatation, Curetting, and Iodoform Gauze Packing."

Other articles in this issue are: "Notes on Cataract Extraction," by Dr. W. H. Bates; "Summary of Electro-therapeutic Work in a Private Hospital," by Dr. G. Betton Massey; "Belt and Pad, as applied to the Præcordial Area, Scrobiculus Cordis, Pit of Stomach, in Concussions and Relaxations of the Heart," by Dr. Henry V. Gray; "The Qualitative and Quantitative Analysis to determine the Presence and Amount of Sulphurous Acid Gas absorbed by Rags Disinfected with Sulphurous Acid Gas," by Dr. James C. Kellog; the remaining paper is by Dr. Elliot T. Brady on "Perversion of Sexual Instinct—Sadism in Southern Negroes—Its Remedy, Castration."

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES

for June. Dr. Landon Carter Gray contributes a paper entitled

Cases that should be Operated upon by Craniectomy.

The causes of mental defect in children he considers to be: Porencephalitis; meningitis and meningo-encephalitis; hemorrhage; either diffused or localized; trauma; hydrocephalus; myxœdema; possible premature ossification of the skull, mainly in the region of the sutures and fontanelles. Of all these causes of idiocy, only the premature ossification of the sutures and fontanelles, recent traumatic injuries, and hemorrhages can possibly be benefited by a craniectomy, for porencephaly, meningitis, meningo-encephalitis, and myxœdema are lesions that the surgeon's knife cannot affect in any way.

Dr. Leo Steiglitz and Dr. Arpad G. Gerster present the report of

A Case of Cystic Tumor of the Brain operated on with Success.

The most noticable feature of the case was the absence of general cerebral symptoms. Dr. Gerster, in discussing the technique of craniotomies, says that the safety of the operation depends upon absolute cleanliness. He has abandoned the old crucial incision for a flap incision of generous proportions, so arranged that its shape will aid drainage in the recumbent position of the head. To avoid hemorrhage from the scalp, the incision is clamped around its entire margin; the clamps being removed one after another as the occluding sutures are introduced. He also uses the mallet and gouge in place of the trephine, as in this way the cutting is more under the surgeon's eye. As soon as enough of the inner table has been gouged away to admit the beak of the rongeur forceps, the gouge is laid aside and the apperture enlarged with the rongeur. To control hemorrhage from the vessels of the diploe he uses the following expedient: The point of a narrow bistoury or tenotomy knife, or of a small drill, is inserted into the bleeding orifice, and is driven into it with the motion of a gimlet, one-half or a whole rotation being sufficient to detach the vessel from the walls of its bony canal, and to cause its retraction. This plan he considers better than the use of plugs of wax, catgut or pith. Attempts at the removal of the lining membrane of cysts or abscesses will usually fail and may lead to serious injury of the brain substance. The removal of tumors will have to vary according to their nature; if encapsulated, their enucleation by the point of the finger, or a blunt instrument, will be easy. Infiltrating neoplasms should not be meddled with; caseous or granulating deposits of a tuberculous or syphilitic nature will admit of the safe use of a curette, by which such of their portions should be scooped away as will readily yield. Hemorrhage from these cavities will be checked by iodoform-gauze pressure.

Dr. D. S. Lamb presents the results of his investigations of

The Meckel Diverticulum.

He takes exception to the use of the words *true* and *false* to distinguish Meckel's diverticulum from the other pouches sometimes found as the result of hernial protrusions. The hernial pouches had better be called hernial pouches, and not false diverticula, because they are not false diverticula. He tabulates the results of his investigations in 109 cases. He also calls attention to the fact that these diverticula may seriously endanger life from invagination; foreign bodies may lodge there; typhoid ulceration may occur. When it has a cord, the outer end of which is attached to some other part of the abdomen, this may cause strangulation of the intestine. It may lodge in a hernial sac and cause fatal disturbance. Where the duct extends all the way to the umbilicus, and the latter is patulous, feces may be discharged from this opening.

Dr. M. H. Richardson and Dr. T. G. Mumford contribute a paper on

Dry Aseptic Operating.

After reviewing the objections to antiseptic operating, the authors describe the following procedure: Antiseptic solutions should never come in contact with the wound, but may be used to render the region to be operated on aseptic. Dressings, instruments, sponging-gauze, sutures, and ligatures are sterilized by heat. They advise the use of a second knife after the skin has been incised. The hands

of the operator and his assistant should never come in contact with the wound; the use of intervening strips of gauze between the flaps, or wound, and the hands of the operator and assistant prevent the contamination. In place of sponges, the authors use packing of sterilized gauze. Instead of mopping, they tampon. So far as the free use of the knife will allow, the cut surfaces and edges are packed rapidly with gauze, which is left behind as the surgeon advances. All vessels, except those of considerable size, are thus controlled, the large bleeding-points being caught, of course, by pressure forceps. The result is that when the work of the knife is completed, the wound remains securely tamponed. The gauze must then be held firmly in place for a few minutes, and on its removal a clean and absolutely dry wound is disclosed. Torsion and a few fine silk ligatures complete the hemostasis absolutely. The authors claim that this method is of advantage not only in clean wounds but also in suppurating, tuberculous and septic cases. They also advocate its use in abdominal operations. The authors have performed in this manner 130 major operations, of which number only one, a case of double pyosalpinx did badly. In that case the abdominal wound failed to heal by first intention. The patient recovered.

Other papers in this month's issue are: "The Disease Process, Glaucoma," by Dr. S. O. Richey; "Thrombosis of the Femoral Vein in Phthisis" by P. R. Dodwell, M. D., M. R. C. P. Lond.; and "Asiatic Cholera" by Dr. Charles A. Leale, in which article he describes the recent threatened invasion of New York City. He protests against daubing the outside of a trunk of perfectly clean articles, and calling that disinfection, while shiploads of dirty rags are admitted.

PERISCOPE.

THERAPEUTICS.

Anæsthetics.

Dr. Hare, in *N. E. M. Monthly*, says: A point of very great importance in connection with the nse of anæsthetics is the position of the diaphragm and its functional activity. I have been able to foresee danger by watching this muscle, when the examination of the ordinary respiratory act as a whole would fail to show any abnormal changes. So much has recently been before the profession as to the functions which first give us danger signals that this point becomes the more interesting and valuable. It is an invariable rule, under the influence of ether at least, that the first evidence of the full effect of ether is seen in the diaphragm. As soon as the movements of this muscle become abortive or irregular, it is time to stop the anæsthetic. Of course, this only applies to the case which has passed the early stages of struggling, when the struggles may readily interfere with all the muscles of respiration. The movement of the diaphragm which forbodes ill, is, as I have said, an irregular, to-and-fro, flapping movement, the reverse of the normal; for in the normal the belly-wall protrudes in inspiration, and recedes on expiration.

Another point of great importance, not only in the treatment of persons suffering from the over-effects of anæsthetics, but in the case of the other accidents, is the use of heat. This was first impressed upon me forcibly by some studies made on the dog and on man in 1888, and later by further observations on man. I found that it was possible to lower the bodily temperature of the dog many degrees by prolonged anæsthesia, and that in man a fall amounting to four degrees might occur in comparatively brief operations, even when little or no blood was lost. I had hardly made these observations before I had a striking example of care in scientific study exceeding care in ordinary surgery. Visiting Victor Horsley's laboratory in the Brown Institution, I saw a monkey upon whom a brain experiment was being performed, lying unconscious in a water-bath, and well covered to retain his heat. This, I was told, was practically a necessity for the survival of the monkey and the success of the work. The next day, however, I found that in operating on the human brain no such precaution was taken. The application of heat about the body of a person undergoing an operation is of the greatest importance, and its use after the operation stultifies the operator, who forgets the old adage, "An ounce of prevention is worth a pound of cure." Care should be taken that the heat is not too great, and that artificial heat-stroke is not brought about. The same facts hold good in regard to cases of hemorrhage or shock.

ARMY AND NAVY.

U. S. ARMY FROM JUNE 3, 1893, TO JUNE 17, 1893.

APPOINTMENT.

Lieutenant Colonel George M. Sternberg, Deputy Surgeon General, to be Surgeon General with the rank of Brigadier General, May 30, 1893.

PROMOTION.

Major John H. Janeway, Surgeon, to be Deputy Surgeon General with the rank of Lieutenant Colonel, May 31, 1893.

RETIREMENT.

Brigadier General Charles Sutherland, Surgeon General, May 29, 1893.

By direction of the Secretary of War, the order relieving Major John Brooke, Surgeon, from duty at Fort Leavenworth, Kansas, and assigning him to temporary duty as Attending Surgeon, and Examiner of Recruits at Philadelphia, Penn., is revoked.

Leave of absence for twenty-one days, to take effect on or about June 15, 1893, is granted Captain Louis S. Tesson, Assistant Surgeon.

The extension of leave of absence on account of sickness granted Captain Marlborough C. Wyeth, Assistant Surgeon, U. S. Army, is further extended two months on account of sickness.

Leave of absence for one month, from July 1, 1893, is granted Captain George T. Beall, Medical Storekeeper, U. S. Army.

First Lieut. George D. DeShon, Assistant Surgeon, U. S. Army will proceed to Chicago, Illinois, and report in person to Captain Louis A. LaGarde, Assistant Surgeon, in charge of the Medical section of the War Department exhibit, World's Columbian Exposition, for such duty as may be required of him in connection with said exhibit.

Leave of absence for fifteen days, to take effect about July 1, 1893, is granted First Lieutenant Paul F. Straub, Assistant Surgeon, U. S. Army.

The leave of absence for seven days granted Captain Edward Everts, Assistant Surgeon, U. S. Army, is extended twenty-three (23) days.

Leave of absence for two (2) months, to take effect on or about July 1, 1893, is granted Colonel Charles T. Alexander, Assistant Surgeon General, U. S. Army.

Leave of absence for one month, to take effect about the first proximo, is granted Major Washington Matthews, Surgeon, with permission to apply for an extension of one month.

U. S. MARINE HOSPITAL SERVICE FOR THE FIVE WEEKS ENDED JUNE 10, 1893.

Baillache, P. H., Surgeon, granted leave of absence for four days, May 22, 1893.

Purviance, George, Surgeon, detailed as chairman Board of Examiners, May 8, 1893.

Hutton, W. H. H., Surgeon, granted leave of absence for ten days, June 1, 1893.

Hamilton, J. B., Surgeon, granted leave of absence for four days, June 1, 1893, granted leave of absence for seven days, June 7, 1893.

Gassaway, J. M., Surgeon, detailed as member Board of Examiners, May 8, 1893.

Stoner, J. W., Surgeon, to represent the Service, at meeting of American Medical Association, June 2, 1893.

Irwin, Fairfax, Surgeon, to proceed to Marseilles, France, for duty, May 16, 1892.

Carter, H. R., Surgeon, detailed as recorder Board of Examiners, May 8, 1893, to report in Washington, D. C., for special temporary duty, May 20, 1893, to proceed to Delaware Breakwater Quarantine for temporary duty, May 31, 1893, to proceed to Baltimore, Md., for temporary duty, June 2, 1893.

Carrington, P. M., passed Assistant Surgeon, to proceed to Bremen, Germany, for duty in office of U. S. Consul, May 16, 1893.

Kinyonn, J. J., passed Assistant Surgeon, to proceed to Chicago, Ill., for special duty, May 8, 1893.

Goodwin, H. T., passed Assistant Surgeon, to proceed to Detroit, Mich., for temporary duty, May 27, 1893.

Sterner, J. B., passed Assistant Surgeon, granted leave of absence for twenty days, June 5, 1893.

Geddings, H. D., passed Assistant Surgeon, to proceed to Reedy Island, Del., for special duty, June 7, 1893.

Condict, A. W., Assistant Surgeon, granted leave of absence for three days, June 5, 1893.

Nooman, Seaton, Assistant Surgeon, granted leave of absence for six days, May 12, 1893.

Summer Excursion Tickets.

To all Northern and Eastern seaside, lakeside, and mountain resorts, to Deer Park, and Oakland, the Virginia Springs, Niagara Falls, Luray Caverns, Gettysburg, and to all other points where people gather in search of health and pleasure, are now on sale at all Baltimore & Ohio ticket offices at greatly reduced rates. These tickets will be sold from June 1 to September 30, and are valid for return passage until October 31. Before selecting your route or resort consult B. &. O. summer excursion book, in which shortest routes and lowest rates, via "Picturesque B. & O." to all resorts are given from points on that road east of the Ohio River; profusely and artistically illustrated. This book can be procured free of charge upon personal application to ticket agents, B. &. O. R. R. Co., or you can have it mailed to you by sending name and address with 10 cents in stamps to Chas. O. Scull, Gen'l Passenger Agent, Baltimore, Md.

To the World's Fair Via B. & O.

GOING VIA WASHINGTON AND RETURNING VIA NIAGARA FALLS.

The Baltimore and Ohio Railroad has placed on sale at its offices throughout the East excursion tickets to Chicago, good going via Washington and returning via Niagara Falls, with the privilege to stop over at each point. These tickets are valid for return journey until November 15th, and are not restricted to certain trains, but are good on all B. & O. trains, and permit holders to travel via Pittsburgh or via Grafton. By either route passengers cross the Allegheny mountains, 3,000 feet above the sea level, amid the most picturesque scenery in America. Sleeping car accommodations may be reserved in advance upon application to nearest B. &. O. ticket office.

THE
MEDICAL AND SURGICAL
REPORTER.

Monograph Series.

NUMBER 1.

SEXUAL FUNCTION AND INSANITY

JOSEPH PRICE, A. M., M. D.
PHILADELPHIA.

HAROLD H. KYNETT, A. M., M D., Editor.
RODERIC C. PENFIELD, Publisher.

Offices: 316-18-20 North Broad Street, Philadelphia.

FEBRUARY 4TH, 1892.

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MONOGRAPH SERIES. NO. 1.

SEXUAL FUNCTION AND INSANITY.

JOSEPH PRICE, A. M., M. D.,
PHILADELPHIA.

The growing circle of comparatively young, yet earnest men of the profession, welcome the awakening of an epoch in medicine and surgery. Our chief pride is that the decree is spurned which would determine for us that we have exhausted the resources of our science and art. There is herald of greater victories than yet gained in the fact that we will not brook servility to the traditions of an ended age. We will tolerate no bondage to the theories of the best genius of the past. They made soil for us in which to plant the seeds of new growths and to the cultivation of which we will apply our improved methods. Time and progress make "an ancient good uncouth." We have no time nor spirit for listening to echos. Let those who love to cling to apron strings, (Paps' Boys), play innocently amid Ancestral shadows, but let there be no restraint upon the impulse, the rugged purpose of those who would have a freer atmosphere for our advances, a larger firmament, and a new and more promising future.

For centuries insanity, even by the most eminent scientists, was considered only from a psychical standpoint. Even yet the alienist insists that you cannot restrain, change or give different direction to these psychical processes, that they are peculiarly and exclusively of the brain—that both cause and effect are prisoned within the cranium. He obstinately refuses to recognize that there is much wrapped up in the mysteries of insanity which the gynecologist could aid him in unraveling. Gynecology is not a branch the Alienist cultivates and he is slow and reluctant to receive its stern lessons. It has been only within the last decade that the bolder, more progressive spirits of the profession have entered into this forbidden field.

We are not at all disposed to question the existence or underestimate the force of psychical influences. Our human science fails to reveal to us their occult working, yet they have for us many lessons worthy of profound study. Nor would we set up the claim that surgical interference will effect cure in all or even the majority of cases where there is disease of sexual organs, but we feel assured that it will in many.

We have a right to expect much in the future from our present and rapidly growing knowledge of the pelvic organs and their functions. We will grow to even better knowledge when to interfere with the pelvic organs and when to let them alone. Diagnosis is not perfect. Even with those with the most successful experience there will continue to be mistakes, but our art has and will continue to improve with the broadening of our experiences. Cases are rapidly multiplying that sustain the claim that a great number of cases of insanity in women can be relieved and absolutely cured by gynecological treatment. We have great numbers coming to us every day with their disorders and sufferings who go away cured, and by every right and claim of humanity the insane are entitled to have the same relief extended to others—if not for mental cure for the relief of physical suffering. They should not be permitted to suffer double afflictions, mental and physical.

Allow for all the factors that face upon us as the chief promoters of mental disturb-

ances and still there remains in very many cases unexplained causes, unless we take into account diseased physical organs. Conclusions from mere psychical phenomena is not satisfying and does not lead to advances in the line of treatment.

That there are causes of insanity outside the cranium is no longer a controverted question among scientific men—those who have given the subject studious, scientific investigation; those who have studied the relation of disease to mental conditions. That there is not more light upon the subject, more relief given and cures affected in our insane asylums is largely due to the inertia, if not indifference, of certain Hospital Authorities.

There is always in such bodies a little biped, jumping-jack minority, who will travel more miles for a good dinner at the expense of some charity, than they will feet for a practical idea or to carry forward some practical and humane work. They will not do themselves, nor let others do, who have a high appreciation of official and professional duty—an intelligent and conscientious sense of the responsibilities of their work. The physicians in charge of these hospitals are usually men and women of tested ability, of noble aims; but there is too much put upon them, both of work and responsibility, and they do not receive that moral support and encouragement they should in a work that tests every faculty of mind and every element of bodily strength. The need is of more help, both of skilful physicians and trained nurses. When there is neglect it is not generally the fault of those in professional charge, their duties are too many and too varied for them to efficiently discharge them all with that completeness which is due to these unfortunate sufferers.

Fitness by thorough education in special lines is not enough considered. This should apply as well to nurses as to medical attendants. The victims of mental maladies require at all times either medical or surgical treatment, and at all times careful, expert nursing. In few other kinds of nursing is there such urgent need for special training.

The work is not one eagerly sought after. It is taxing, bodily and mentally; it is a work in which those employed grow into expert discharge of their duties.

And let me add that very few gynecologists would be specially ambitious to exercise their calling in a lunatic asylum. In no other sphere would there be such weight of professional responsibility, such a burden of anxiety, such need for sleepless watch. These sadly diseased people are, so far as their legal or other responsibility goes, but children; they are the child-wards of the State. This fact greatly augments the responsibility of those made officially their care-takers. There should be a gynecologist, oculist, and other important specialists represented in each and all these institutions. The field of needed treatment is too broad for any one man's mastery. It has been demonstrated that the gynecologist can aid in restoring many of these unfortunate victims of the most dire calamity that can befall one of our human kind to complete cure or to better mental balance by the surgical treatment of diseased organs. They understand the causal relation accidents incident to parturition bear to disturbances of the nervous system. It must be recognized that there are troubles without the domain of medicine and within that of surgery, requiring surgical means of investigation and surgical means of treatment.

Dr. Thomas Savage in an address delivered in the obstetrical section of the British Medical Association says: "There is one more point I should like to refer to, and that is the necessity that exists for most and certainly all large lunatic asylums, to have a gynecologist as a member of their medical staff. Among the causes of insanity in women, heredity, intemperance and the vicissitudes of female life are said to be most frequent, and it has occurred to me, as I know it has to others, that in regard to the latter element as a cause, much good might result if every case in which there was the least doubt, were thoroughly overhauled and investigated by an experienced gynecologist."

There can scarcely be any dispute of the statement that there are now a large number of child-bearing women confined in our insane asylums into whose condition no special inquiry has been made. Their trouble has loosely been regarded as simply one of loss of reason or mental

balance without a moment's inquiry as to primary causes. Uterine and ovarian disease are quite as common in this class as among the sane. Unfortunately as yet we have found no class exempt.

With the view of throwing light upon the subject, a subject that, by virtue of its grave importance, needs all the light that can be thrown upon it, we will give a consensus of the opinions of the most eminent men of the profession of Europe, in connection with those of our own country who have given the subject the most careful, thoughtful, patient and laborious inquiry.

Dr. Barnes, one of the most eminent surgeons of England, formulates the three following questions:

(1) Did the sexual disorder declare itself first?

(2) Did the nervous disorder declare itself first?

(3) What are the mutual reactions of these two disorders?

And if we trace anticedence of the sexual disorder, can the nervous disorder be traced to the sexual as a cause, or *vice versa*? These questions place the subject in line of direct and intelligent inquiry and open a very wide field of scientific and clinical study.

So very valuable do we consider Dr. Barnes' very thorough study of the subject that we shall quote freely from one of his very able papers, satisfied that his conclusions are of great practical value and will serve an educational purpose, do much to enlighten that class of alienists whose prejudices are stronger than their reasoning.

Dr. Barnes says: "Even if not directly causative, serious sexual disorders cannot fail to be an aggravating factor of the nervous disorder. It must be granted that no satisfactory solution can be attained without bringing to the inquiry thorough all-round diagnostic skill. Before recent advances of gynecology, women sane and insane had to suffer from ills now known to be curable. In studying the correlations of mental and sexual phenomena, we are struck by the double light thrown upon the problem by the application of surgery. The immediate design of surgery is the relief of suffering. Gynecology is largely surgical, and the true solution of its most important problems is revealed by direct appeal to surgery. It teaches physiology, the rational basis of the healing art; it demonstrates pathology at the same time that it heals. The surgeon learns, the subject gains life and health. Has this enlightening and beneficent surgery been fairly applied to the study of the physiology and pathology of women, or to the relief of women secluded in lunatic asylums.

When a complicating factor intervenes, as neurotic diathesis or disordered action of the sexual organs, the equilibrium is lost, and nervous disease may be provoked. If we pass to the neurosis that attend morbid conditions of the uterus and ovaries we get even more striking evidence of causation.

A *frequent state is displacement* of these organs, not necessarily diseased in tissue.

The most common is retroflexion or retroversion, with or without prolapsus of the uterus. These can hardly exist without entailing some disorder of menstruation, and this is enough to disturb the nervous equilibrium. But in addition to this, the displaced organ presses upon other organs, as the bowel and bladder, impeding their functions, and especially if it presses upon the sacral plexus, and so causes constant irritation of the lower segment of the spinal cord, a part of the nervous system, as we have seen more highly organized than it is in the male. So-called sympathetic, reflex or diastalic phenomena are frequent. In not a few instances these minor nervous disorders culminate in melancholia and mania. I have the history of cases in which the subjects had been insane for long periods, with no sign of amendment until they came under my care. I discovered pronounced retroflexion with hyperplasia of the uterus. This being corrected by surgical treatment, rapid recovery ensued. In one most striking case the subject returned to her home, bore twins, and has since been in perfect physical and mental health. Dr. Bennington reports a case to the British Gynecological Society equally remarkable. Schweder Vander Kolk relates a

case of a profoundly melancholic woman who suffered from prolapsus uteri, in whom the melancholia used to disappear directly the uterus was restored. Fleming mentions two similar cases in which the melancholia was cured by the use of a pessary, in one of them returning whenever the pessary was removed. In one instance, says Dr. Mandsley, I saw severe melancholia of two years' duration disappear after the cure of prolapsus uteri. It is probable that inversion of the uterus entails pressure upon the ovaries and disturbance of their function. Similar examples of nervous disorder have been observed in connection with displacement of the ovaries. Occasionally one ovary sinks down in Douglas' pouch, getting below the level of the uterus. Severe nervous symptoms follow, and have been relieved by maintaining the ovary in its proper place, or by removing it.

Trouble is especially liable to occur when the ovary is enlarged to the size of an orange or even less. In such a case removal by operation is clearly indicated. The influence of disease of the ovaries is not less remarkable.

Do we not see in these facts proof that these organs exercise a motor and governing power over the nervous centres. It seems more rational to look for freedom from mental disease in those women who have undergone a succesful operation for the care of an ovarian or uterine disease. Such diseases we know are apt to entail nervous disorders, and we have seen that the nervous disorders, when complicating disease of the sexual organs, are frequently cured when the diseased organs are removed."

Dr. Savage reports a case in which profound melancholy was associated with prolapsus of the uterus, and the patient had been restored to health within twenty-four hours of the relief of the conditions. Dr. Bantock reports the case of a woman who for nine years had been the subject of a form of melancholia. She had tried every kind of treatment until she came under the notice of Dr. Marion Sims, who after examination at once said he thought the patient could be cured. She was taken to Europe and Dr. Bantock confirmed the opinion of Dr. Sims, and an operation was agreed upon. It was performed by Dr. Bantock and revealed "the ovaries in that peculiar condition which resembled a deformed bunch of grapes, very little larger than the normal, they were evidently extensively diseased. Within two months the patient was quite restored to health, and she had remained well ever since. There the connection between the ovarian lesion and the mental disturbance was clear and indisputable."

Dr. R. T. Smith, an English surgeon of unquestioned ability, in reporting a case where he had removed the ovaries says: "In the whole round of the various kinds of treatment which need to be adopted for the diseases which come under our notice as gynecologists, there is none which causes more thoughtful and anxious consideration than the use of surgical procednres for nervous disorders. From this case we may deduce this lesson, that while hysteria is frequently a disease that may be safely left to moral and general treatment, it is also sometimes a very serious disease in itself, and demands energetic and indeed surgical interferences."

Dr. Barnes in discussing this case "inquired whether the cases reported by Gull, Fagge and others, of hysteria without local disease, had been examined in the presence of a gynecologist; otherwise he would demur to accepting those cases as proof that hysteria could arise independdently of pelvic disorder, when properly treated by local measures hysteria often disappeared. The statement that such cases often required surgical treatment was full of truth and hope."

Dr. Bantock in referring to Dr. Smith's case said: "He did not know that it was necessary to justify the operation that they should have very distinct evidence of disease in the ovaries, what they regarded was the association of these attacks with some condition of the pelvic organs and particularly of some association with the menstrual function."

Dr. Bucknell: "There can be no doubt that uterine disorder constitutes one of the most frequent remote causes of insanity with which we are acquainted. Dr. Esquerol: "Menstrual anomalies make up a sixth part of the causes of insanity, "Dr. O. G. Pfaff reports a case of insanity

cured by removal of double pyo-salpinx, patient returned to her home in a month and continued to improve until cured.

Among American physicians and surgeons who have taken advanced ground on this subject, energetic, progressive men who are not in bivouac or barrack but on the march we are glad to name Dr. George H. Rohe, Dr. I. S. Stone and Dr. C. A. S. Reed.

Dr. Rohe says: "Every gynecologist has had within his own experience cases of neurosis, persistent pain, psychical depression not amounting to melancholia, "nervousness," hysterical manifestations, etc., which he has found to depend upon some lesion in the pelvic organs. I venture to say that no form of treatment gave such prompt results in these cases as the surgical, whether that consisted in the ablation of the uterine appendages, extirpation of the uterus, the repair of cervical lacerations, or the restoration of a ruptured perineum. At all events, I do not hesitate to say that this has been my own experience with women outside of an insane hospital."

In a personal communication under date "of January 24th,1893,Dr. Rohe writes:—So far as my abdominal cases are concerned I have now done 22 sections here—20 with removal of the appendages and two exploratory. Four of the cases have been discharged recovered and are still well. One other is so much improved that she has been given leave of absence and has now been at home over three months. I hear from her regularly and judging from the reports I receive I will soon be able to discharge her also. Two of the cases (epileptics) died, one from septicemia,—a large collection of abscesses in the ovaries and tubes,—and one other also from septicemia, although death occurred in status epilepticus. None of the cases have been made worse. In nearly all there has been mental improvement. In all there is physical improvement. This would naturally be expected as the operation was nearly always done for sufficient physical disease to demand it irrespective of the mental condition. I observe that Dr. Alice Bennett has been interfered with in her work at Norristown. I regard that as a great outrage, and hope the profession in your State will express itself in positive tones upon this system of regulating the practice of medicine."

Dr. I. S. Stone makes the very pertinent inquiry: "Can the Gynecologist aid the Alienist in Institutions for the Insane? This question, he says, should receive an affirmative answer without debate. The question is asked by the Gynecologist briefly thus: Are there not in every community of from one hundred to five hundred, many cases of uterine or pelvic disease? Is it not true that in a community of five hundred sick women, sick mentally often because of bodily infirmity, that the statement should be doubly true? We claim that very many more pelvic causes of insanity exist than are found, owing to the difficulty of making a diagnosis in these cases. No fact is better understood than that any disease of the abdominal organs may favor insanity even by interference with nutrition alone. How much more does it seem probable that disease of the organs peculiar to women, which so much more than the corresponding organs in men, have to do with her physical and mental condition, may cause psychical derangment."

Dr. C. A. L. Reed speaks plainly and gives the conclusions of a student of the subject in all its bearings:

"A gynecologist has at last been appointed the medical officer of a hospital for the insane. He has dispelled several illusions which have been imposed upon the profession and the community by the old and, unfortunately, yet existing *regime.* In the first place, he has found that these patients can be examined without injury to themselves; in the next, that diseases of the intrapelvic organs can be as readily diagnosticated in their cases as in others; that they can be operated upon as readily and with as good results as sane patients; and, finally, that after primary recovery from abdominal section, a very encouraging proportion of them recover mentally; and, still lastly, that among the most happy mental recoveries are cases that have been incarcerated for years and labeled as incurable. I invite the attention of the profession to the magnificent work being done in this direction by Dr. George

H. Rohe, of the Maryland Hospital for the Insane. When asylums become organized as hospitals, with staffs as specialists in the various departments in attendance, we shall realize the maximum of recoveries in these institutions."

The frequent association of hysteria with disease of the appendages is generally admitted. Yet it is not maintained that there should be resort to surgical procedure in every case of hysteria. There should be clear indications, a recognized asssociation of mental disease with sexual disorder.

Some of our best authorities doubt the existence of hysteria independent of pelvic disorder. In a discussion before the College of Physicians, December 4, 1889, Dr. S. Weir Mitchell said he "agreed with Dr. Price in regard to this operation in hysterical women. Many who had both ovaries removed and were none the better for it, seemed to constitute the most irremedial of all the cases of hysteria. There is one condition which makes it justifiable to operate on healthy ovaries. That is where a woman, passed the age of probable marriage, is insane only at the menstrual period. IT two such cases removal of the ovaries was done at his request by Dr. Goodell. One was a case of homicidal mania at the menstrual periods, and the other case was one in which were developed extraordinary sexual appetites in a woman at other times modest. In both of these cases the recovery was absolute."

Dr. Marie B. Werner, a specialist and skillful diagnostician, made a series of examinations of patients in the Norristown Asylum during the Spring of 1892, and her careful summary (MEDICAL AND SURGICAL REPORTER, Dec. 31, 1892,) of what she found in thirty cases has great value as giving in succinct form an analysis of the many and varied troubles she encountered, with brief reference to their history, where such could be obtained:

CASE I. Melancholia, following last labor, vagnia examined; *small mass in right pelvis space; prolapsus of uterus; lacerations of cervix and perineum.*

CASE II. Acute Melancholia. First attack supposed to have been induced by the establishment of puberty; second attack followed third labor; *uterus fixed posteriorly; mass to the left;* right ovary prolapsed.

CASE III. Acute Mania. Attack sudden, in August, 1891; patient aged forty-seven; vagina examined; uterus drawn to the left; *painful mass on right side;* cyst of right labia; complains of pain down legs when walking.

CASE IV. Melancholia. Second attack, vagina examined; uterus anteflexed; *masses both sides.*

CASE V. Mania. Vagina examined; uterus retroverted and fixed; body large, cervix small; rectal examination reveals *masses on both sides.*

CASE VI. Melancholia. Three months after birth of child. *Uterus retroverted and fixed; external hæmorrhoids.*

CASE. VII. Melancholia. Uterus enlarged, *fixed to the left; mass on right side;* cystic degeneration of cervix.

CASE VIII. Mania. Multinodular Uterus; *masses on the right side* with tenderness; cystic degeneration of cervix, and bleeds to touch.

CASE IX. Mania. Uterus enlarged; some *impaired mobility;* cervix cystic and eroded.

CASE X. Mania. Last labor occurred six months before admission. *Uterus enlarged,* somewhat hard; moderately movable; cervix patulous; bleeds readily.

CASE XI. Chronic Mania. Brain fever marked the onset of the attack; *uterus retroverted, prolapsed and fixed;* tenderness in both pelvic spaces.

C SE XII. Mania. *Mass in right pelvic space; perineum lacerated.*

CASE XIII. Melancholia. "Was not well after last child was born." *Uterus prolapsed; laceration of cervix and perineum.*

CASE XIV. Mania. Second attack; *uterus fixed, masses on each side;* laceration of cervix and perineum; kraurosis of both vaginal orifice and vulva.

CASE XV. Mania. *Small undeveloped uterus; fundus posterior and to the left;* moderately movable.

CASE XVI. Mania. Last child July 20, 1891; placed in Friend's Asylum, August 8, 1891; uterus fixed anteriorly; *tubes tortuous and enlarged; left ovary*

cystic; laceration of both cervix and perineum; varicose veins at vulva orifice.

CASE XVII. Imbecility. Three children; last, four and a-half years before attack; *uterus fixed posteriorly; masses on both sides;* cervix patulous and lacerated; also perineum; hæmorrhoids.

CASE. XVIII. Mania. Last labor thirteen months before attack, which was gradual in onset; uterus and appendages normal; marked lateral tear of vaginal wall nearly to cervical junction, causing prolapsus.

CASE XIX. Melancholia. Onset four months after last labor; uterus prolapsed and retroflexed; *mass in left pelvic space;* movable body in right pelvic space, like the ovary.

CASE XX. Chronic Mania. Uterus atrophied; *laceration of cervix and perineum;* some cicatrical bands in vagina.

CASE XXI. Second attack. Atrophy of uterus; pelvic spaces free; some *laceration of perineum.*

CASE XXII. Melancholia. Third attack. Anteflexed enlarged, but movable uterus.

CASE XXIII. Second attack. Anteverted uterus drawn to left; *mass to the right.*

CASE XXIV. Melancholia. Cause puerperal; uterus enlarged and prolapsed; *mass on the left;* lacerated perineum; external hemorrhoids.

CASE XXV. Chronic mania. Cause puerperal; uterus fixed anteriorly, cervix large, body small and flabby. *Tender masses in both lateral spaces;* old fistulous tract to the right of the anus extending directly upward beyond the internal sphincter.

CASE XXVI. Acute mania. Second attack. Anteflexed uterus; engorged cervix and vagina; *mass on right side.*

CASE XXVIII. Chronic mania. pelvis of male type; vagina short; uterus undeveloped, fundus backward; cannot distinguish the appendages.

CASE XXIX. Mania. Fourth attack. Vaginal examination, *uterus fixed posteriorly, tender mass on left side.* Section July 3rd, 1892, removed appendages; cystoma of left ovary; right ovary undergoing calcareous degeneration; both tubes undergoing tubercular degeneration, there were some adhesions from a recent peritonitis. Patient made a rapid and uninterrupted recovery; was discharged cured five weeks after the operation.

CASE XXX. Acute dementia. Admitted 1888; vaginal examination; enlarged anteverted uterus; *mass on right side distinct;* complains of *great tenderness in left side which feels boggy.* Section, July 3rd, 1892; removed appendages; hydro-salpinx of both sides; left tube degenerated to a large cyst; dense adhesions to bowel, uterus and posterior cul-de-sac. On right side tube somewhat smaller, but tortuous, fimbriæ of both obliterated. Used drainage thirty hours; patient made a good recovery, which I understand also includes marked mental improvement.

Dr. Werner, in discussing in these cases, says: "Some operators, who have successfully dealt with multiple and single abscesses in the pelvic structures, which had given rise to periodic attacks of pelvic peritonitis and in consequence to vicious adhesions which alone often give rise to the most painful symptoms, have extended their influence and knowledge in the direction of that class of unfortunates, who often cannot understand or make known their suffering, viz., the insane. Their results have on the whole been encouraging, in so far that they have removed one source of irritation, always having in mind *to operate only in cases where disease can be demonstrated beyond a doubt.*

* * * * * *

These cases have made me feel that there is a necessity for careful study of all cases, and especially those in which the puerperal period antedates an attack. If a remote irritation can lead to insanity or epilepsy, why cannot an abscess, tubercular disease or other pelvic inflammations, also enter the field as causative factors? The claim is not to cure by operation, but by removing the irritation and thus aiding nature in restoring gradually, perhaps, its lost nerve force.

* * * * * *

It is impossible for the alienist to be a specialist in all branches of medicine; and it is a fact, that the insane are subject to all the diseases the sane are troubled

with; hence the necessity for special work in special directions. This work however should be a conscientious painstaking study of each individual case."

These are of a number of cases to which the State Lunacy Commission, by the advice of their *learned* counsellor, object to being surgically treated.

As to the legal inquiry—are we justified in operating on a lunatic who cannot give a responsible assent? Sir Spencer Wells, in one of these cases, consulted Sir William Harcourt, then Home Secretary of England, as to the legality of ovariatomy upon a lunatic. The Home Secretary said: "If she is incapable of judgment for herself, treat her as if she were an infant." So the operation was done, the patient recovered and married. This dictum, full of the very meat of good sense, given out by one of the highest authorities of England, whence I believe we have copied the most that is best in American law, should certainly not be set aside though it be in conflict with the opinion of the astute Attorney of the Lunacy Commission. Were some member of a lawyer's family affected with some hereditary mental disturbance combined with some pelvic trouble decisively indicating surgical treatment, there would be no question raised as to the legality of the procedure to remove diseased parts.

Women come to us in great numbers for the relief of disorders of the sexual organs. They come because they suffer; we surgically interfere to relieve their suffering. The insane suffer fully as much as do the sane; they are equally entitled to attention, and it is as much a duty to relieve their misery as that of the sane. The treatment of such diseases might, as expressed by Dr. Barnes, often be undertaken quite independent of any idea of curing the mental condition, but simply for the purpose of relieving physical distress.

The State, having taken these people under its protection, pledges every provision for their welfare, every means and agency of relief in the way of shelter, home care, nursing and every needed medical and surgical treatment. The insane are as strongly predisposed to uterine and pelvic troubles as are the sane, and there can be no other rational conclusion than that the results of surgical treatment would be as fortunate, from a surgical standpoint, in one class of cases as in the other. In sane cases general practitioners are alive to the importance of consultations with specialists in all cases of pelvic and uterine disease. Why the same importance of consultations does not exist in an insane case it would be difficult to explain.

The time will come, and it is to be hoped for the sake of suffering women it is not far distant, when an enlightened public sentiment will demand the opening of asylum doors to the free ingress of every agency that can cure or in any form mitigate the suffering, or make better the condition of the insane; when our asylums will not only be in charge of excellent physicians, but with skilled gynecologists and thoroughly trained and expert professional nurses,—those with a training specially adapting them to their work.

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The Etiology of Prostatic Hypertrophy

—BY—

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MONOGRAPH SERIES. NO. 2.

THE ETIOLOGY OF PROSTATIC HYPERTROPHY.*

G. FRANK LYDSTON, M. D.†

Few pathological conditions indeed have been the subject of a greater variance of opinion as to the etiology, than has enlargement of the prostate. The opinions of authorities have varied from the agnostic assertion that in the present state of our knowledge we are unable to determine positively the cause of the condition, to opinions as dogmatic as could be imagined. It is a noteworthy fact that most of the modern theories are fully as open to criticism as some of the more ancient views. Thus there is much of logic in the opinion of Home,[1] who, some seventy-five years ago, promulgated the theory that the principal cause of prostatic disease was a slow return of blood from the neck of the bladder, arising from the disadvantageous situation of the veins as regards their relation to the heart which favors habitual congestion of these vessels. He held the opinion that this tendency to congestion was enhanced by high living, or any other circumstances which increased the circulation of the blood in this region. Home believed that traumatism, such as is incidental to horseback riding, sometimes produced in the deeper parts of the prostate a rupture of the blood vessels which was subsequently followed by hypertrophy. This rupture of vessels he believed to be in some measure analogous to apoplexy. He also assigned to old age a prominent role in the production of hypertrophy of the prostate.

*Read before the Detroit Medical Library Association, December 9th, 1892.

†Professor of the Surgical Diseases of the Genito-Urinary Organs and Syphilology in the Chicago College of Physicians and Surgeons.

Wilson,[2] in 1881, endorsed the opinion of Home so far as the tendency to the disease on the part of high livers was concerned. He seemed to think that strict celibacy on the one hand, and venereal excess on the other, were alike potent in the production of the disease, although he admitted that exceptional cases occurred in which enlargement of the prostate developed in people who lived abstemious and temperate lives.

Sir Charles Bell asserted the existence of a predisposition to prostatic enlargement, but did not state what constituted or caused this predisposition. Admitting that such predisposition existed, he believed that the exciting causes were associated with irritation of the bladder with resulting frequent contractions of that viscus. As a consequence of these contractions of the bladder, he believed that the urethral muscles were the seat of over-action, the result of which was to draw the so-called median lobe backward in such a manner as to elevate it and constitute an obstruction to the escape of urine.

Samuel Cooper[3] frankly confessed that the causes of prostatic hypertrophy were unknown. He seemed to think from his experience, however, that people who led sedentary lives were more liable to the affection than others.

Astley Cooper[4] arbitrarily stated that hypertrophy of the prostate was the consequence of age alone, and not of disease.

Brodie[5] seemed to think that enlarged prostate was a matter of course in old men. He believed that prostatic hypertrophy never becomes manifest until plainly

marked evidences of senility developed.

The late Dr. Gross[6] expressed himself to the effect that prostatic hypertrophy might result from habitual engorgement of the organ incidental to protracted and repeated sexual intercourse; irritation from a vesical calculus; the free use of stimulating diuretics and alcoholic or malt liquors; exposure to cold; the suppression of cutaneous diseases; gout and rheumatism; traumatism; the frequent introduction of the catheter, and habitual straining at stool, as in chronic diarrhœa and other affections of the bowels.

Mercier[10] classed as predisposing causes all conditions and influences which favored sluggishness of the circulation. According to him, men of lymphatic habit with plenty of cellular and adipose tissue, have generally a lax and unresisting venous system. Such subjects, he claimed, are most frequently the victims of prostatic enlargement. He considered that sedentary habits favored the disease.

Amussat[8] stated that syphilis, a foreign body in the bladder, or stricture of the urethra were the most common causes of prostatic enlargement. It it observed, he claimed, chiefly in elderly persons who have for a long time used sounds or bougies upon themselves.

Desault[7] claimed that enlarged prostate was very common in elderly men, and in those who have had numerous attacks of gonorrhœa. He also believed that the disease might bear a causal relation to scrofula and other cachexiæ.

Civiale,[9] in discussing the etiology of prostatic hypertrophy, placed first in the order of prominence vesical calculus. Second only to vesical calculus, he considered organic strictures of the urethra. He denied the relation of venereal excesses to chronic prostatic disease.

Coulson[11] contents himself with the presentation of the views of others and has no opinion of his own.

Thompson expresses himself in the most unequivocal fashion as believing that prostatic hypertrophy is seen in young patients; the organ in such cases becoming enlarged by interstitial plastic effusion, the result of inflammatory action, while in old age there is unnatural development of the prostatic tissue proper, i. e., it is true hypertrophy. According to him, the action of inflammation and its products does not favor growth, but it is directly antagonistic to such a process. A prostate, therefore, which has been enlarged by inflammatory effusion is according to Thompson, probably less likely subsequently to exhibit an hypertrophic tendency. Nutrition is thus impeded, not encouraged. In brief, Thompson feels warranted in excluding inflammation from the list of causes. Urethral stricture and calculus are not considered by him to be of great importance in the etiology of prostatic hypertrophy. He does not believe that habitual engorgement of the prostatic and hemorrhoidal plexuses has much to do with the etiology of the disease. True hypertrophy, according to him, in any situation never has venous congestion for a cause; venous congestion impairs structure and predisposes to ulceration of the tissues affected by it, but it never augments vital force or stimulates growth. Upon this ground Thompson denies congestion as a possible cause of hypertrophy of the prostrate. He further disputes the possibility of rheumatism, gout or syphilis playing any part in the pathological process. Regarding the effect of sexual excesses, he says: "Much influence has been attributed to the effect of habitual indulgence of this kind; but from the fact that the affection has been observed to occur in individuals known to have been remarkable for chastity, the opposite extreme of continence has been regarded also as exercising a similar influence. In regard to the first, it appears reasonable to believe that repeated use might induce hypertrophy here as elsewhere; while, without entering upon the question of prostatic function, it is impossible not to asscciate the organ with the sexual act, and admitting this it appears not to be easy to escape the inference that hypertrophy is likely to result from sexual excess; yet facts do not favor this view. Hypertrophy does not exist when the function is in greatest vigor and is not called into immediate existence by the most licentious excesses indulged in during the prime of life, and in must be admitted that in any part of the body hypertrophy develops itself

coincident with, or, at all events, immediately follows the increased action which induces it."

Although Thompson disputes the view that the prostate is truly a secreting gland, he admits it for the sake of argument, and claims that no other gland offers a pathological parallelism with hypertrophy with the prostate; all of its component tissues are not increased in their relative proportions. An enlargement of the gland may be due to an increase of glandular elements; or, on the other hand, to a change in the structure and an increase in the bulk of the prostatic tissues proper. Thompson does not believe, furthermore, that an enlargement of the prostate is a simple muscular hypertrophy induced by increased action. He calls attention to the close similarity between the uterus and the prostate and seems to think that just as during the latter part of the period of reproductive activity the uterus is prone to develop new growths identical in structure with its own, a similary tendency will be found to develop new gowths in the prostate at a corresponding period in the life of the male. Thompson's tables apparently support the view which he promulgates by showing that hypertrophy of the prostate is a disease incidental to old age, but he fails to make clear the precise connection between advancing age and the development of prostatic hypertrophy. Even granting that old age is the chief factor in the production of the disease, there is yet much to be accounted for. Why should so large a proportion of elderly men present a condition so distinctively pathological affecting an organ which in old age at least should be practically of no importance from a physiological or functional standpoint? Thompson himself admits that hypertrophy of the prostate is not necessarily, or even usually, present in old age, but is rather an exceptional condition. According to him, a slight tendency to hypertrophy of the prostate undetermined during life may exist in about one in three individuals after 60 years, and that a marked enlargement may be met with in any one out of seven or eight after that age.

The modern French school, following that celebrated authority upon genito-urinary diseases, M. Guyon, entertains the peculiar view that enlargement of the prostate is not a local condition and the effect of local causes, believing that all the urinary organs, and particularly the bladder, undergo changes of analogous character, the origin of which should be looked for in structures bearing absolutely no anatomical relation to the urinary system; implying, in short, that enlargement of the prostate is dependent upon general atheroma. Thus this school claims that the walls of the bladder fail in their power with a resulting accumulation of residual urine followed by cystitis, *prior* to the enlargement of the prostate. Reginald Harrison has asserted that the habit of partial retention frequently precedes the vesical signs of prostatic enlargement, the depression of the posterior wall of the bladder being a primary change. The depression of the posterior wall of the bladder results in a compensatory hypertrophy which determines the development of a strong muscular band or buttress at the base of the trigone, and finally enlargement of the prostate itself.

It is obvious that even though we admit that in certain cases, depression of the floor of the bladder and alteration in the walls of that viscus precede perceptible pathological change in the prostate, I contend that such cases are no argument against what appears to me to be the correct view, that pouching of the bladder is generally a secondary condition. General atheroma, for example, with a resulting alteration of the structure and power of the bladder might occur and subsequently become associated with enlargement of the prostate, which enlargement is due to the same causes as in other cases in which prostatic hypertrophy is unassociated—primarily at least—with disease of the bladder.

Taking for our point of departure the modern and rational view that all pathology is but perverted physiology, it becomes our duty to inquire into the structure and function of the prostate in our endeavor to determine the chief factors in the production of that peculiar enlargement known as prostatic hypertrophy.

The older nomenclature of the prostate, which implied the glandular structure and function of the organ, has been assailed by modern authorities upon genito-urinary disease, and there has been considerable argument upon the question as to whether it functionates purely as a muscle or its muscular action is secondary, or better, auxiliary to its glandular function. The most interesting and logical description of the prostate extant, is found in the recently published lectures of Mansell Moullin[1]. This author begins a discussion of the subject with the assertion that "the prostate neither acts as a sphincter, nor as a muscular buttress.

"It does not assist in the propulsion of urine, nor does it delay its exit from the bladder. It is purely and simply a sexual structure developed around the first portion of the urethra in connection with the sexual organs and with a well-defined sexual function. The first portion of the urethra, which is surrounded by the prostate, belongs anatomically to the bladder, which is not only continuous with it, but is developed from the same structure, the allantois. They are absolutely distinct from the rest of the genito-urinary passages. In the monotremata the penile and prostatic portions of the urethra never become organically joined, the penile portion of the urethra serving as a sexual organ only and having nothing to do with the urinary function. In man a somewhat similar condition is seen in so-called hermaphrodism where the urethra opens in the perineum, and if a transverse section of the prostate be made just below the vesical neck in an infant, the relation of the prostate to the urethra cannot be mistaken. The urethra lies in the center or a little in front of the prostate, with a few longitudinal bundles of non-striated muscular fibre around it. External to these fibres there is a very thin layer of circular fibres, some of which appear to be muscular. This is probably part of the circular coat of the bladder. "The prostate itself forms two great masses, one on each side, composed almost entirely of ducts with an indication of acini at their ends, converging toward the central canal. In front, they are connected together by interlacing fibres with large nuclei spreading from the great transverse mass of stroma that stretches across the urethra. The prostate, in short, surrounds the urethra, supporting it, but forming no part of it. The canal runs down through the middle and the gland is simply grouped around it.

"The sexual character of the glandular part of the prostate is not to be seriously questioned; it can have nothing to do with micturition. The glands do not attain their full growth until the time of sexual maturity. In castrated animals they waste and disappear and, like the other sexual organs, in many animals, their size and perfection of structure rise and fall according to the breeding season. The stroma of the gland, the fibrous and muscular tissue surrounding the first part of the urethra, is held by many to be the real seat of hypertrophy in old age. Whatever may be its pathological conditions, the stroma of the gland is purely sexual and has nothing to do with micturition as long as the structure is normal at least. That it is unnecessary to the urinary function, is shown by the fact that women and children get along very well without it." As Moullin very properly states, this description of the structure and function of the prostate holds good only so long as the organ is in a normal condition. Any alteration in shape, size or consistence distinctly modifies its relation to both the urinary and sexual functions.

From what has been said it should, it seems to me, be plain that the prostate is practically a gland, the function of which is of a purely sexual character. The glandular elements are held together by a certain amount of connective tissue stroma, reinforced and protected by an amount of muscular and fibrous tissue, varying according to the degree with which the gland departs from its normal condition. Either inhibition or exaggeration of function is likely to result in a change in the stroma of the gland.

It must be admitted that in seeking for the etiological factors of the peculiar pathological changes to which the prostate is subject, we must take the structure and function of the normal prostate as our point of departure. It is imperatively necessary in the consideration of those

pathological processes of a chronic character in which there is no traumatic or infectious element to explain their etiology. If the function is a sexual one, it is here that we must look for the cause. If the function of the prostate body be essentially that of a gland, it is to its function as a gland that we must refer in explaining its pathology. If the function of the prostate is that of a muscle, we must consider perturbations of its muscular action in studying the etiology of prostatic enlargement.

I have never been able to understand by what process of reasoning enlargement of the prostate has been attributed to the age of the patient *per se;* particularly does this theory seem far-fetched if we consider the prostate as a sexual gland, the activity of which should decrease with advancing age, with a resulting atrophy—if indeed any change at all should occur—rather than an hypertrophy. As Moullin shows, both by logical argument and by actual demonstration, "the enlargement of the prostate is, at its commencement at least, essentially a diffuse glandular growth, spreading chiefly in the mucous and submucous tissues and later becoming considerably modified by secondary changes; failure in expulsive power of the bladder being in almost every instance the direct consequence of it. Age alone, though it may not be without influence, certainly cannot be the cause for two reasons, either of which is sufficient. In the first place, prostatic overgrowth is not met with in anything like the majority of old men, and its degree bears no relation to the age they reach; and, in the second place, it may occur, and does so with very much greater frequency than is usually believed, in those who certainly do not deserve to be called old, whether the number of years or the condition of sexual power is taken as the standard. The time of life at which it makes its first appearance must not be confounded with the age at which the presence of residual urine is ascertained. The growth may have been present for years before giving rise to this particular result, and the absence of any enlargement when the gland is explored only per rectum is not of the slightest value as regards its extension in other directions. If vertical antero-posterior sections are made through the neck of the bladder and the urethra after hardening the part with as little disturbance as possible—and this is the only fair test for the vesical form of overgrowth for rectal measurements, the weight of the gland when dissected out, or the external dimensions, however carefully they are taken, give very little information as to the shape of the gland, and none at all regarding its consistence, it is by no means uncommon to find a considerable degree of increase in the size of the prostate long before what can be called old age, whatever the standard." Moullin then proceeds to give a number of cases ranging from twenty-seven to fifty-four years of age. The point raised by Moullin regarding the frequent occurrence of enlarged prostate at an early period of life is interesting, for it has been my experience that a large proportion of comparatively young individuals whom I have examined for various genito-urinary affections, not necessarily connected with the prostate, and who have not recently suffered from acute inflammation of the organ, present a distinct fulness of the prostate when examined per rectum. I have found this condition in masturbators and in individuals who had had at a remote period inflammatory trouble in and about the prostate and neck of the bladder. I find it very often where there are no symptoms distinctly referable to the prostate itself, and it seems to me highly improbable that all of these cases can go through life without annoyance incidental to increasing prostatic hypertrophy,—or hyperplasia, if you please,—with subsequent condensation of tissue. It has seemed to me that the relation of old age to hypertrophy of the prostate is a secondary one, the primal point of departure being really pathological conditions incidental to an abuse of the sexual function, or to acute or subacute, inflammatory or congestive processes of the organ during early life. To put the matter more succinctly: I believe that old age bears the same relation to enlarged prostate that it does to certain joint troubles that come on late in life, as a consequence of some long forgotten pathological condition or injury occurring

at an earlier period of life, and that in view of the distinctly sexual function of the prostate, an exaggeration of the secretory activity of the gland and the muscular action incidental to expulsion of semen during the earlier years of life, causes the injury which in most cases constitutes the point of departure for prostatic hypertrophy later on. An additional factor is the occurrence of gonorrhœal inflammation. While as yet my experience has not extended over the requisite number of years to enable me to present cases that have been watched for a sufficient length of time to establish this point positively, I have cases of middle aged men under my observation at the present time, whom I have seen off and on for the last ten years, who are suffering from prostatic disturbance and enlargement of greater or less degree, which has been more or less continuous during the time that they have been under my observation, and which were undoubtedly due originally to sexual excesses, gonorrhœal inflammation, or both, in combination in some instances with dietetic and alcoholic excesses.

I have under my care at the present time a physician of forty-five years of age, who has a prostate which is distinctly enlarged, a moderate amount of residual urine, and a considerable degree of cystic disturbance whose own observations and opinions of his case confirm the assertion that I have just made.

I have another case under observation of a layman, fifty years of age, who confesses to sexual excesses, and states that he has had trouble with the bladder and prostate more or less continuously since an attack of gonorrhœa, with resulting prostatitis at the age of thirty. While this case is open to impeachment on the ground of too short a period of observation on my part, at the same time the history is worth something and the fact remains that there is prostatic enlargement. I will not attempt to present a long array of cases, which appear to me to support my view of the etiology of enlargement of the prostate, but I am confident that I could present a sufficient number of cases to make quite a comprehensive paper by themselves.

I am inclined to believe that the term prostatic overstrain is sufficiently comprehensive to embrace the etiology of a very large proportion of cases of enlargement of the prostate. Just as the tissues of a joint, which has experienced a strain during early life, may become thickened as senility approaches without there being necessarily any manifestations of pathological change elsewhere, so may the much abused prostate suffer in old age, the penalty for the abuse it receives during the youth of the individual. But it may be argued that enlargement of the prostate occurs in men who have led chaste lives, and in those who have never had a gonorrhœa, or indulged in the pleasures of the table to excess. It may occur, for example, in the honest farmer, who has been surrounded all his life by an environment conducive to the perpetuation of the ideal physical condition. But there are other evils to be taken into consideration besides sexual excess—infection and the liquor habit. While not so likely to become a masturbator as is the city boy, the young lad in the country very often does fall into this habit, and he is much more likely to suffer from ungratified sexual excitement than is the young man in city life. Strict continence should imply not only physical continence from a strictly sexual standpoint, but mental continence and an abstinence from masturbation. If it be granted that masturbation will produce hyperæmia and hyperæsthesia of the prostate and the prostatic urethra; and if, moreover, it be admitted that the function of any glandular or muscular organ cannot be long abused without the production of a permanent morbid impression, the probable importance of masturbation as an etiological factor in enlargement of the prostate must be admitted. If this be admitted, and the large proportion of boys who are addicted to this habit be taken into consideration, the question of masturbation as an etiological factor in hypertrophy of the prostate becomes a very important one.

Can disturbance of micturition *per se* produce conditions which may lead later in life to enlargement of the prostate? I believe that they can, but the manner in which this is brought about is almost pre-

cisely the same as in the case of prostatic overstrain from sexual excess. Irritation of the prostatic sinus and membranous urethra, *i. e.*, the neck of the bladder, produces frequent and spasmodic expulsion of urine with an attendant stimulation of the nerves of sexual sensibility and a resulting disturbance of the circulation of the prostate similar to that which prevails during sexual excitement and ejaculation. The relation of this condition of affairs to prostatic congestion is well shown by the almost magical effect of the posterior urethral application of nitrate of silver in such cases. The nitrate of silver applied in this manner has certainly no effect upon the prostate *per se*. It is a question indeed whether fluids thus applied ever enter any of the various ducts of the prostatic glands. The nitrate of silver probably superficially cauterizes, or, if you please, constringes only the mouths of these orifics, any other beneficial effect being explained by its action upon the mucous membrane lining the prostatic sinus, and its germ-destroying properties. The fact remains, however, that a large tumefied prostate incidental to the habit of masturbation, or following infection of the deep urethra, will often subside very quickly under the influence of a succession of applications of nitrate of silver to the prostatic sinus.

If the causes of prostatic overstrain be continued during middle life, as they are very apt to be, it is not to be wondered at that there is danger of prostatic hypertrophy. As long as the tissues of the body are elastic and well nourished—tissue metamorphosis occurring readily and rapidly—the various organs and tissues of the body soon recuperate themselves and return to their normal condition after they have been the subject of frequent and extraordinary strain. As the individual approaches middle life, however, this fortunate provision of nature no longer prevails, and in the case of the prostate the penalty of overstrain is obvious. As the prostate enlarges its increase of bulk enhances the very conditions which produced it. The sexual furor and obstinate priapism observed in some old men with enlarged prostates, are familiar to every experienced surgeon.

The influence of gout and rheumatism in the etiology of prostatic hypertrophy must, I think, be taken into consideration, although not to the extent claimed by most of the authors who accept these diathetic conditions as possible or probable causes of prostatic hypertrophy. In considering these diathetic states in their relation to prostatic enlargements, it is fair, I think, to again refer to prostatic overstrain as of the primary condition. To use what is perhaps an indefinite term, but is none the less comprehensive, it may be said that the tendency to chronic formative irritation—or rather to chronic pathological tissue building—seen in many gouty and rheumatic subjects, particularly late in life, may manifest itself only in some organ or tissue which many years before perhaps has been the subject of injury or overstrain. Taking again as our point of departure the thickened and stiffened joint developing in the old man who has suffered an injury to that structure many years before, the possible importance of gout and rheumatism is at once obvious. Few practitioners indeed have not met with cases of so-called rheumatic gout or arthritis deformans limited to a joint or joints which the history plainly shows to have been injured more or less severely in early life.

In regard to the influence of diathesis in the production of hypertrophy of the prostate, I will therefore simply assert my belief that gout and rheumatism should occupy a minor position in the etiology of the disease, because such constitutional states promote tissue irritability and a tendency to new growth at points of strain and irritation either present or long since forgotten.

Prostatic enlargement, as I have shown in the *résumé* of opinions upon its etiology, has been referred to stricture. Stricture of the urethra I believe to be capable of producing chronic congestion and hyperplasia of the prostate, i. e., overstrain with resulting circulatory disturbance, if you please. But I would advance the proposition that within certain limits the danger of prostatic hypertrophy resulting is inversely to the degree of obstruction. By this I mean to convey the idea that strictures of large calibre in the penile

portion of the canal produce proportionately a much greater reflex disturbance of the prostate than deeper strictures of small calibre in the deep urethra. I think that a man who at the age of from 30 to 40 presents himself with a very tight stricture in the deep urethra is likely to be perfectly protected from enlarged prostate in after life; or if the prostate itself becomes enlarged the enlargement is not likely to encroach upon the urethral calibre at the neck of the bladder or to jut into the vesical neck. While irritation and congestion occur, hyperplasia of the portion of the prostate which is most likely to produce urinary obstruction is prevented by the pressure of the urine in the prostatic urethra. My experience in the performance of perineal section upon tight strictures in the musculo-membranous region, has been that the prostatic urethra is often extremely dilated at the expense apparently of the prostate itself, or at least that portion immediately contiguous to the mucous membrane lining the prostatic sinus. The effects of pressure in producing relative prostatic atrophy are well shown in cases of calculi which become lodged in the prostatic urethra. There may be, it is true, compensatory hypertrophy of the outlying fibres of the prostate, but we must not forget what seems to me to be a very logical analogy, viz.: the hypertrophy of the heart followed by extreme dilatation which results from obstructive valvular lesions.

It must be admitted that whatever the cause of pathological tissue building, hyperplasia or hypertrophy of tissue, the tissue thus formed is produced for a purpose—not always beneficial it is true—for certain anatomical or physiological conditions frequently defeat nature's object in this direction as seen in the case of stricture of the urethra, but even in case of stricture of the urethra nature's intentions are good, and the neoplastic formation is placed there for the purpose of promoting rest or relieving strain. It is either a splint or a bulwark against pressure. If it be admitted—and I think it will be—that nature does nothing in an haphazard way, the proliferation of glandular, connective and muscular tissue incidental to hypertrophy of the prostrate is readily understood. If there were no special causes of strain the prostrate, if it change at all in old age, should atrophy *pari passu* with the diminution of sexual activity, as it does in castrated animals and eunuchs. That it does not frequently atrophy is explicable by two facts, to wit: 1. That very few individuals are in a perfect physiological condition from a sexual standpoint during their entire lives. Fewer still enjoy a normal old age. 2. The sexual activity is long enduring in the male, and the sexual organs may remain capable of the physiological performance of their functions until a period when in other directions the individual is in a condition of advanced senility. To put the latter proposition a little more plainly, and with no intention to be facetious, it may be remarked that the individual dies before his sexual organs have time to do so, in the large proportion of cases. This prolongation of sexual activity is acquired by the human race through faulty sexual hygiene. It is an acquired disturbance of physiological equilibrium.

Prostatic overgrowth from hyper-functional activity of the organ—this being the most comprehensive term which can be used in describing its etiology in detail—may affect the prostrate in several different ways. There may be an excess of glandular tissue, which Moullin believes to be of paramount importance, or there may an access of fibroid tissue. The resulting enlargement may be diffused and general, or may be circumscribed. The arrangement of the enlargement depends largely upon certain secondary conditions to which the hypertrophy may lead, and anatomically upon the relative proportions of fibroid, muscular, connective and glandular tissue. Much depends upon the age at which the subject is examined. If a large number of prostrates in comparatively young subjects in whom more or less congestion and enlargement of the prostrate is present—which is not usually considered to be a preliminary stage in the development of prostatic hypertrophy, but which I believe to be so—could be examined post mortem the proportion of glandular tissue would, I think, be found to be much greater than

in more advanced cases. The glandular elements may be strangled out by fibro-connective tissue development—as in cirrhosis of the liver—as the case progresses. It is this metamorphosis that explains why the engorgements and hyperplasias of the gland occurring in early life have been supposed to be distinctly different from, and to bear no relation to, the pathological condition of the organ occurring in old age.

One of the strong arguments in favor of disturbance of micturition being a direct cause of prostatic hypertrophy, is that the patient presents a history of urinary irritation and obstruction of a greater or less degree of severity, extending perhaps over a number of years before he consults a surgeon; in other words, the secondary results and the most important symptom of prostatic hypertrophy have existed for a long time before the enlargement is discovered by exploration.

We must take into consideration in this connection some very important facts, viz.: 1. Prostatic hypertrophy is not likely to give rise to symptoms until a certain amount of residual urine has collected as a consequence of the obstruction. 2. A considerable degree of residual urine may be tolerated without great discomfort until such time as decomposition occurs. Decomposition is not very likely to occur unless exploration or instrumentation has been undertaken. The cystitis of the prostatique is an ingraft upon the prostatic enlargement and the resulting depression in the *bas fond*, due, as a rule, to catheterization with a dirty instrument. As long as the residual urine does not decompose, just so long does it give rise to very little discomfort. Sometimes the discomfort experienced is very slight, although the amount of residual urine is large in amount, until acute engorgement with resulting sudden urinary obstruction occurs and call attention in a very urgent manner to the condition of the hypertrophied organ. 3. A considerable degree of obstruction with resulting accumulation of residual urine may occur in cases of posterior median hypertrophy or the formation of a bar at the neck of the bladder, which is not easily discoverable by examination either instrumental or digital. This condition produces, in many instances, very disagreeable symptoms and if, after a time, enlargement of the prostate be sufficiently advanced to enable the surgeon to detect it readily, it is likely to be attributed to the long-standing trouble of micturition. A confusion of *propter* and *post* under such circumstances is not to be wondered at.

Regarding the influence of syphilis in the production of prostatic hypertrophy I will simply state that I do not believe that it is of the slightest etiological importance.

I cannot leave the subject of prostatic hypertrophy without paying some attention to certain forms of prostatic disease which will at once suggest themselves to the thoughtful surgeon, as apparently contradictory to some phases of the etiology of the affection as evolved in the foregoing remarks. I refer to those cases in which there are distinct fibro-myomatous or glandular tumors which may be shelled out of the organ upon division of the investing tissues. It has been shown that such tumors are sometimes merely covered in by the prostatic capsule, while in other instances they are imbedded to a greater or less depth in the prostatic tissue. I believe, notwithstanding the apparently distinctly tumorous character of such growths, that the etiological factors which I have outlined may bear an important causal relation to them. I confess, however, that it is much more difficult to define the relation of cause and effect in such cases than in those in which there is a distinct general glandular or fibro-muscular enlargement of the organ. To explain the occurrence of these growths perfectly satisfactorily, it will be necessary to give, at the same time, a logical explanation of uterine fibro-myomata, which offer the clearest analogy to the growths under consideration, as well as of fibroid growths in other situations. The old time explanation of analogy based upon the supposed homology of the uterus and prostate explains nothing, particularly in view of the fact that the etiological theories of uterine fibro-myomata thus far advanced, are by no means as clear as could be desired. Possibly the theory of neoplasms

formulated by Cohnheim is about as comprehensive and logical as anything which has thus far been brought before the profession. Idiosyncracy in the form of a local histological aberration is certainly worthy of consideration. Even admitting the existence of such a local idiosyncracy, however, it might still remain for the etiological factors which I have outlined to determine the occurrence of the growths. When once a circumscribed growth begins, certain local conditions may tend to enhance its circumscription, as is seen in the pedunculation of the so-called median lobe, in which the increasing frequency of micturition unquestionably has some effect in modifying the form of the enlargement.

CONCLUSIONS.

1. The principal criticism which I would offer upon the hitherto published theories of the etiology of prostatic hypertrophy is that there has been an arbitrary attempt by most authors to assign the disease to one particular cause or co-related set of causes to the exclusion of other influences, and with an apparent disregard for the physiology of the organ. This is especially true of the theories of senility, general atheroma, and diathetic conditions.

2. The prostate, while it partakes of some of the pecularities of an involuntary muscular structure is, after all, anatomically and functionally a gland of a peculiarly sexual character.

3. The relation of the prostate to the function of micturition is purely an accidental one, as shown by the perfect performance of this function prior to the period of development of the prostate, and in Eunuchs and Geldings in whom it is atrophied. The participation of the prostate in the urinary function is not only secondary, but where it does come prominently into play, is a sequence of pathological conditions.

4. Granted the sexual and glandular function of the prostate, it is in the direction of the perturbation of this sexual and glandular function that we must look for an explanation of hypertrophy of the organ, or, in short, for all pathological disturbances which are not the direct result either of traumatism or infection.

5. Hypertrophy of the prostate is in all probability due to overstrain of the organ during the period of its greatest sexual activity. This overstrain produces active congestion or hyperœmia, and glandular proliferation, which, if it persists for a long time, is not followed by restoration to the normal condition, but by permanent hypertrophy. Prolonged and ungratified sexual excitement with its resultant disturbance of the circulation of the prostate may, equally with sexual excess, produce a disturbance of the nutrition of the gland which late in life will result in prostatic hypertrophy.

6. The conditions which constitute the point of departure from the normal prostate that determines prostatic hypertrophy at a later period, comes on earlier in life than is usually supposed, a large number of individuals being affected by it.

7. In the majority of instances prostatic hypertrophy is attributed to senile change, simply because the secondary results of a prostatic enlargement occurring at a relatively early period, do not manifest themselves in most instances until the patient is well along in years. It is conceivable that, although more or less prostatic obstruction may exist before middle age, residual urine may not accumulate in any great quantity until after the bladder walls themselves have begun to loose their elasticity by virtue of the physiological changes incidental to increasing age. Even admitting that residual urine has formed in considerable amount, there may be very little resulting disturbance until such time as germs penetrate the bladder and set up decomposition.

8. The occurrence of prostatic hypertrophy in advanced life as a consequence of overstrain of the organ at an earlier period, is explicable upon the same grounds as is the development of arthritic disturbance at the sight of a traumatism—i. e., a strain received in early life—in persons beyond middle age.

9. Senility, gout, rheumatism and general atheroma are in all probability not the exciting causes of prostatic hypertrophy, but are determining factors in so

far as they promote irritability of tissue, a tendency to connective tissue proliferation and a loss of elasticity of tissue.

10. Prostatic hypertrophy is really an evidence of conservatism on the part of nature in her attempts to resist strain and promote rest of a much abused organ, and begins at the time when such abuse is most pronounced, although its effects may not be manifested until later in life when other influences have had time to come into play. While the prostate is not normally a urinary organ strictly speaking, and while disturbance of micturition is not *per se* causative of prostatic hypertrophy, said disturbance when once it arises as a consequence of prostatic hypertrophy, necessarily reacts upon the diseased organ and enhances the pathological condition present.

12. In a perfectly normal old age, it is probable that the prostate should atrophy. That it does not do so more frequently is explained by the prolonged duration of the sexual function in the human species incidental to the developmental effect of over indulgence and other causes of sexual over-stimulation.

It may be remarked in passing that neither the human male nor female is on the average in a perfectly healthy state from a sexual standpont, inasmuch as the sexual function is made subservient to sensual gratification rather than the procreative act its original object. The sexual life of the lower animal—at least in the wild state—typifies the normal in most instances, while that of the human subject typifies the abnormal, or, if you please, the artificial. There is no question in the minds of logical gynecologists and neurologists as to the truth of this assertion regarding the female, and I feel free to maintain that it bears with equal force upon the sexual function and organs of the male. That an organ is patient and long-suffering under physiological abuse, does not obtain for the individual who abuses it, immunity from future penalties.

13. It will be found by careful rectal examinations of men from the age of twenty upwards, that a prostate which is perfectly normal in size, consistency and sensibility is the exception rather than the rule. This is true of the masturbator and sexual hypochondriac as well as of the individual who has had posterior urethritis, although the latter condition is, it must be confessed, a very frequent explanation. That this aberration of the prostate is followed in the majority of cases, by a return to a perfectly normal condition is highly improbable in the face of the fact that the majority of patients so affected lead lives, which are so unphysiological from a sexual and dietary standpoint, that the condition of the prostate is more likely to become aggravated than improved. To expect complete resolution in the average patient, who keeps up his sexual abuse and perhaps over-indulges in the pleasures of the table, would be absurd. The penalty in such cases is, very frequently, in my opinion, hypertrophy of the prostate.

14. There are certain cases of so-called prostatic hypertrophy of a circumscribed character, which should properly be termed fibro-myomata of the prostate, and in which the etiology is very obscure. The old time homology with the uterus explains nothing in the face of the obsurity of origin of uterine fibro-myomata. Even in this last variety of prostatic tumors, the etiology outlined in the paper and conclusions, may have a practical bearing.

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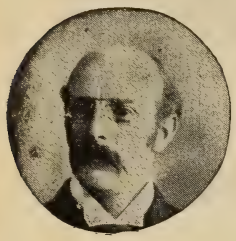

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Peroxide of hydrogen was discovered and described in the year 1818 by the illustrious French chemist, Baron THENARD. B. W. RICHARDSON, M. D., (*Asclepiad*) says: "In 1860 I made my first report to the Medical Society of London, and, in 1862, I made a second report on the medicinal use of the peroxide. I had by this time used it in two hundred and twenty-three cases of disease, including phthisis, diabetes, anæmia, sub-acute and chronic rheumatism, strumous enlargement of the cervical glands, mesenteric disease, pertussis, chronic bronchitis, chronic laryngitis, mitral disease, and dyspepsia. In epitome of results I drew the conclusions: That in diabetes the peroxide reduced the specific gravity of the urine, while it rather increased the quantity: that in chronic and sub-acute rheumatism is afforded relief; that in valvular disease of the heart with pulmonary congestion it gave relief to the dyspnœa; that in mesenteric disease; and in jaundice it caused an improvement in the digestion; that in pertussis its effect for good was very remarkable, since it cut short the paroxysms of cough, and seemed decidedly to shorten the period of the disease; that in chronic bronchitis it lessened the dyspnœa, and rendered the expectorated matter less tenacious; that in chronic laryngitis it gave pain on being swallowed, and did not appear to be useful; that in anæmia it did not of itself render any service but favored the good effect of iron; that in the first stage of phthisis it caused improvement in the digestion, and in the later stages gave unquestionable and even wonderful relief to the breathlessness and oppression, acting, in fact, like an opiate without narcotism, and assisting oxidation.

In the discussion which followed upon the reading of this paper I was warmly supported in several points by Drs. GIBBON, SYMES, THOMPSON, and GIBB, all of whom had been prescribing the peroxide on the suggestion made in my previous paper of 1860. Dr. GIBB bore special testimony to its value in affording relief during the last stage of phthisis, for which I had recommended it in the case of a member of his own family. But the most important new observation I had to communicate to the Society in 1862 was that in free and frequently repeated doses the peroxide could be made to produce a modified salivation. a fact which led to two suggestions: firstly, that in the use of mercurial and iodide preparations it was the chlorine or iodine in them which caused the ptyalism; secondly, that the peroxide would be a good substitute for mercury and the iodides in the treatment of syphilis.

In testing the action of the peroxide on natural organic structures which liberate oxygen from it, I observed, as related above, that the fluid oxygen causes, in some instances, decomposition of the organic matter. The same factwas observed with abnormal organic material like pus. When pus is placed for observation under the microscope, mixed with the neutral peroxide solution, the phenomena are most interesting. The pus corpuscles are, for a time, driven about as if they were alive. They move in all directions, assume ovoid shapes as they squeeze through masses that may obstruct their course, and after many variations of form and movement come to a standstill, like amorphous matter, dead, so to speak, and entirely disorganized. This effect of the peroxide in destroying pus cells led me very early in these researches to use the solution for the treatment of suppurating surfaces, and with great success."

Many other observers have testified to the value of this remarkable substance, not only as a disinfectant in the treatment of wounds, etc., but as a curative agent in a great number of infectious diseases,

---

DR. THOMAS S. K. MORTON, in an article on the "Treatment of Leg Ulcers." N. Y. *Med Journal*, page 26, July 2, 1892, says: "Next, the ulcerated surfaces are subjected to the powerful but harmless antiseptic action of a spray of full strength (15 volume) peroxide of hydrogen solution. Pouring on of the agent is almost as efficient, but very wasteful. If the spray is employed, however, it is essential to use an atomizer of which every part is made of hard rubber, as the powerful oxidizing qualities of the solution will almost immediately destroy any metallic parts with which it may come in contact. The ulcer, having been thus sprayed until active effervescence ceases, is then gently washed off by a stream of simple water, or by a pledget or mop of absorbent cotton saturated with the same. This carries away all detritus loosened up by the action of the peroxide."

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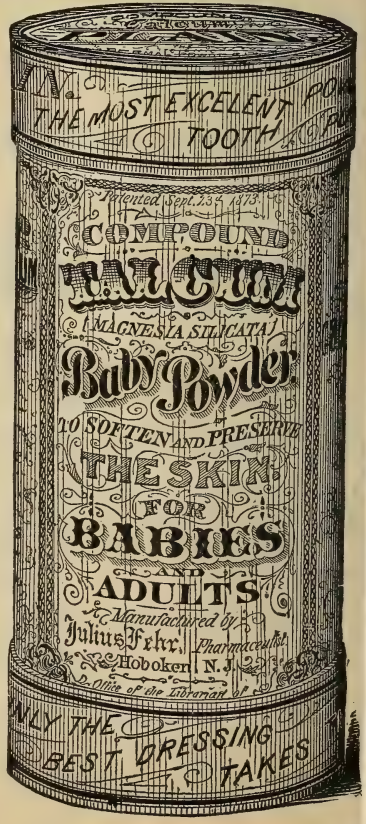

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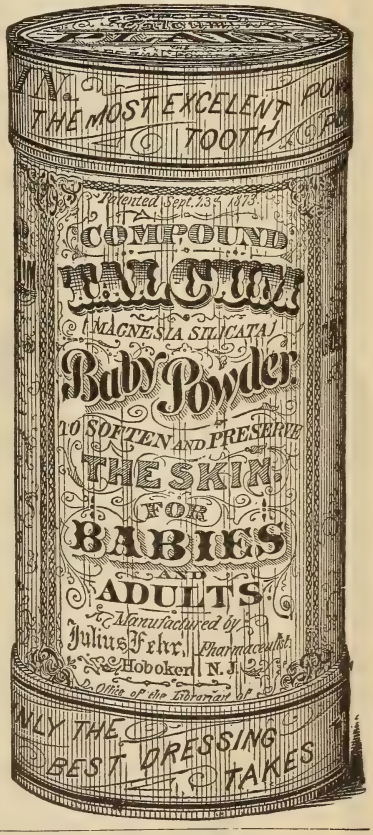

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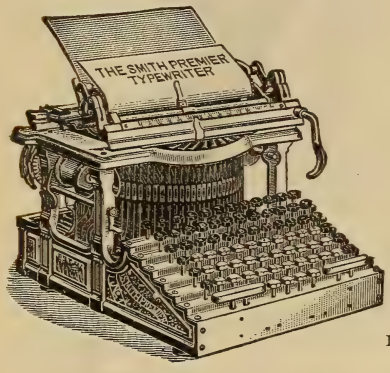

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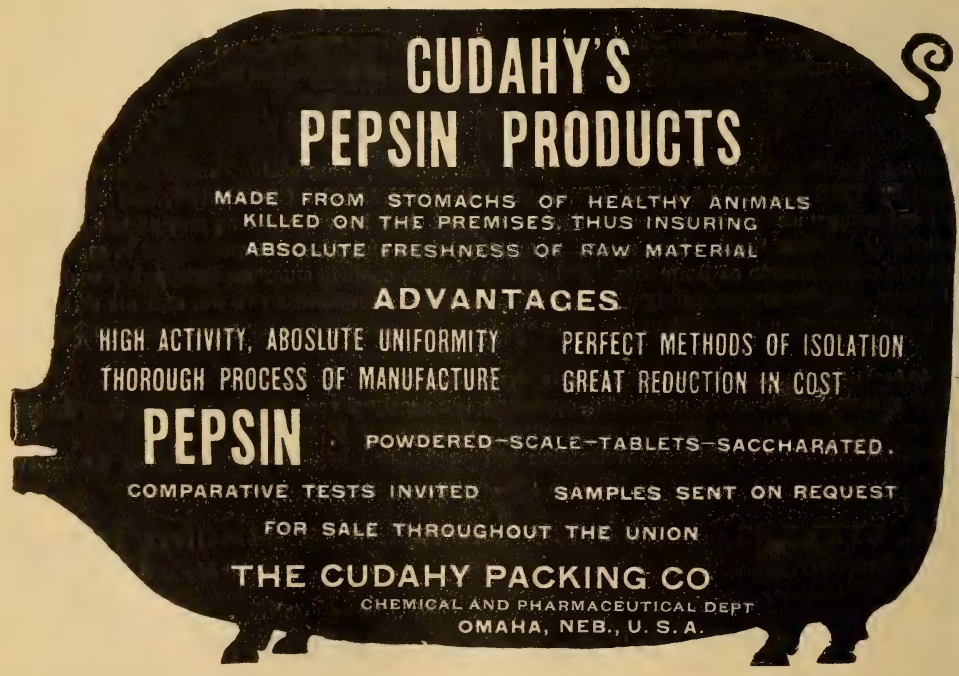

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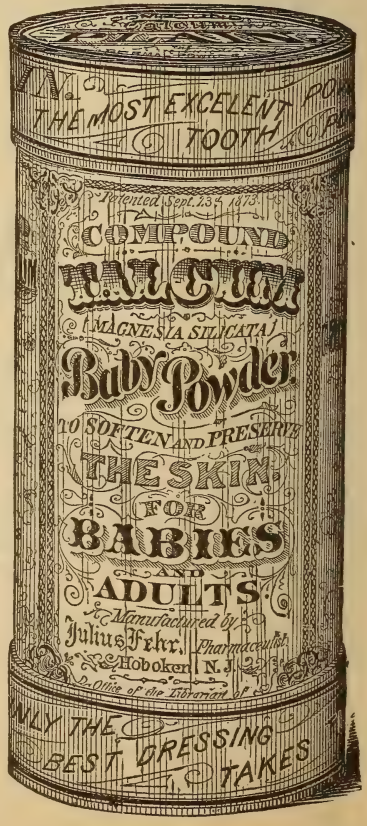

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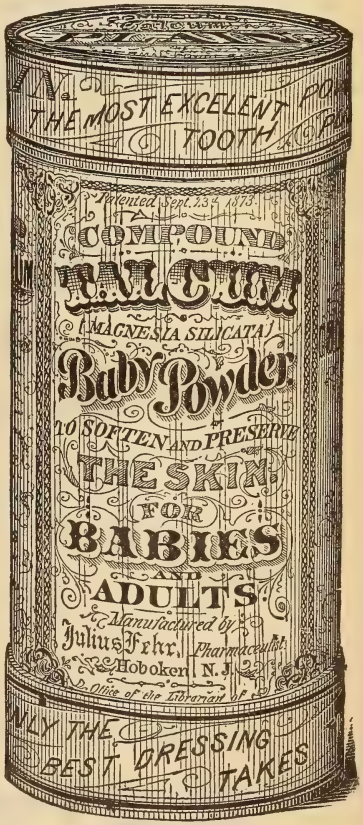

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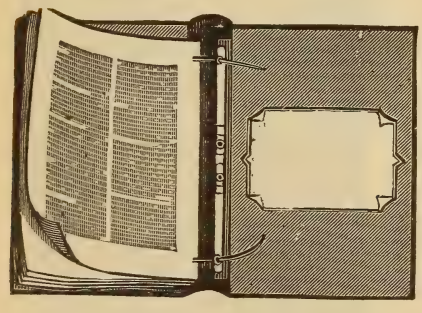

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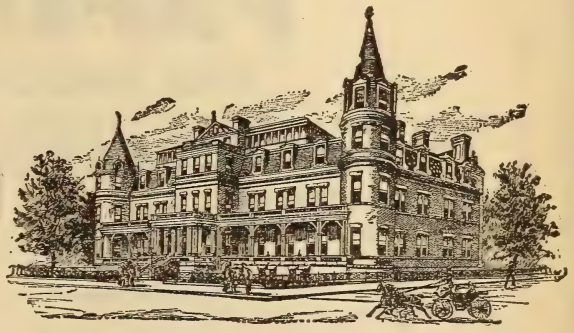

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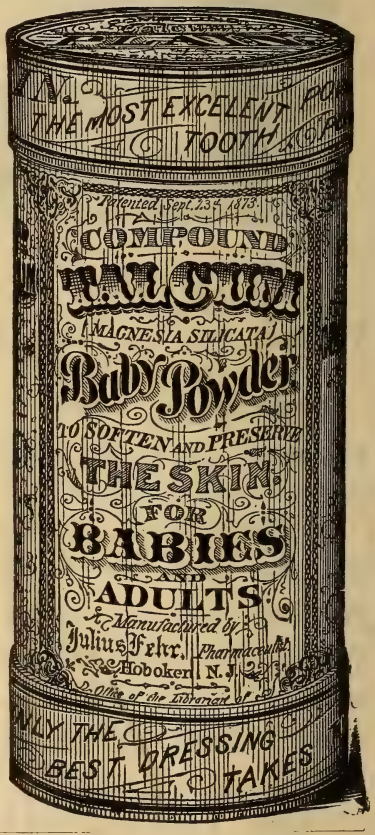

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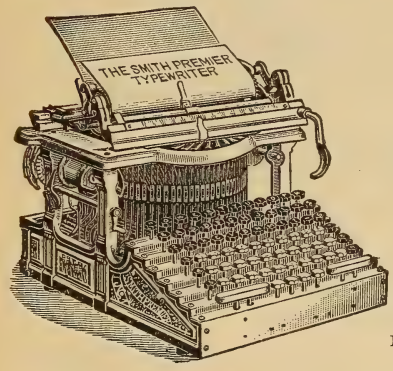

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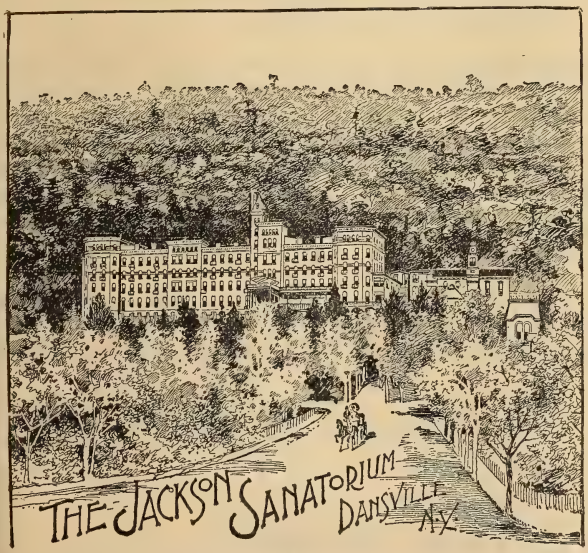

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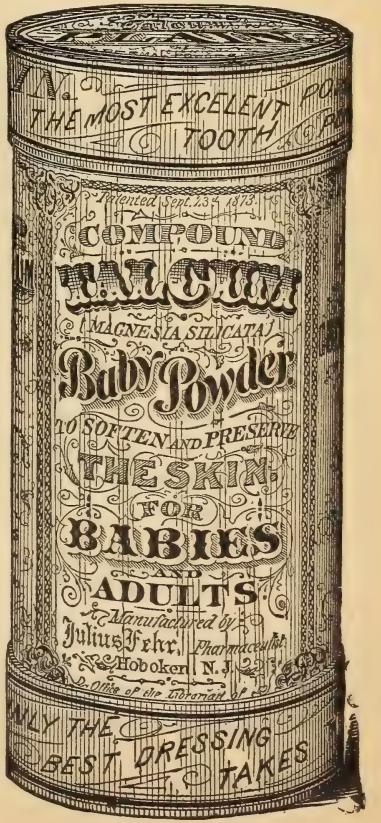

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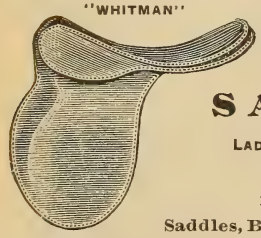

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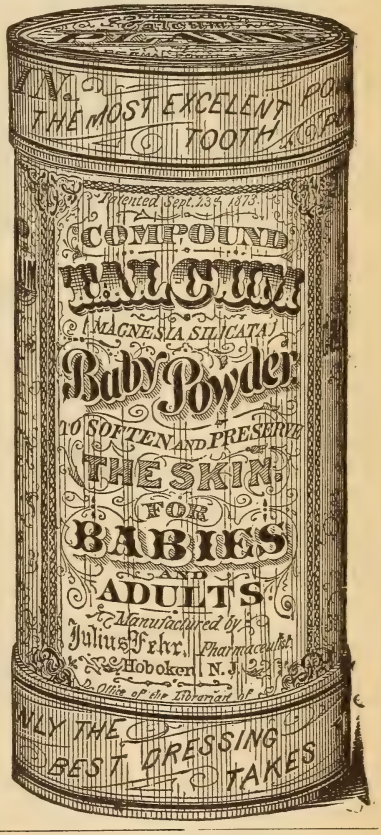

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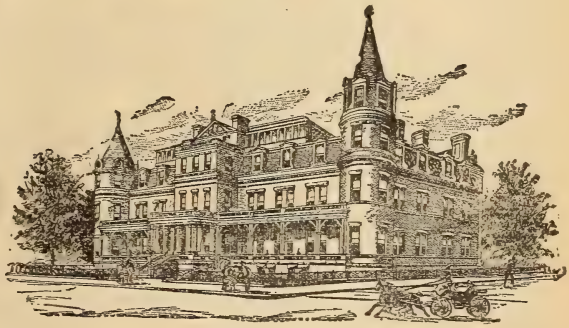

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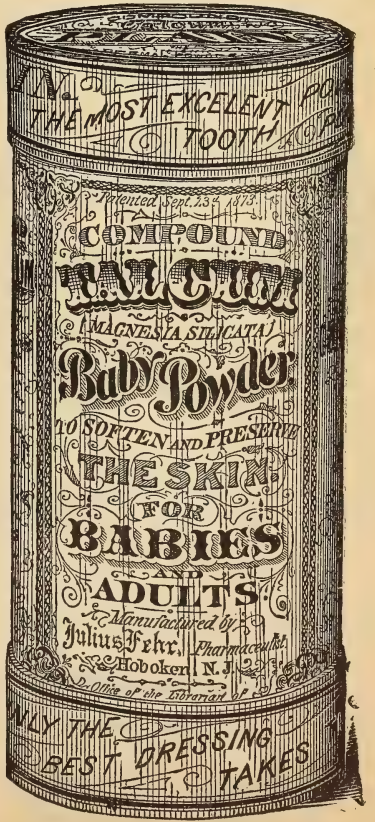

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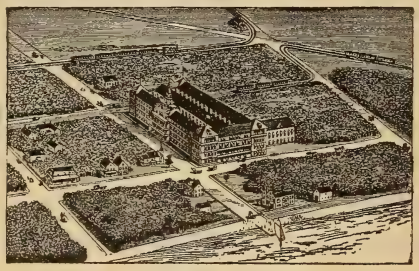

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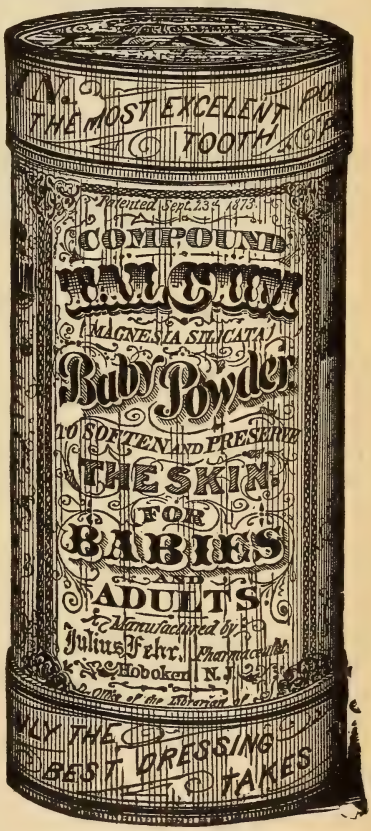

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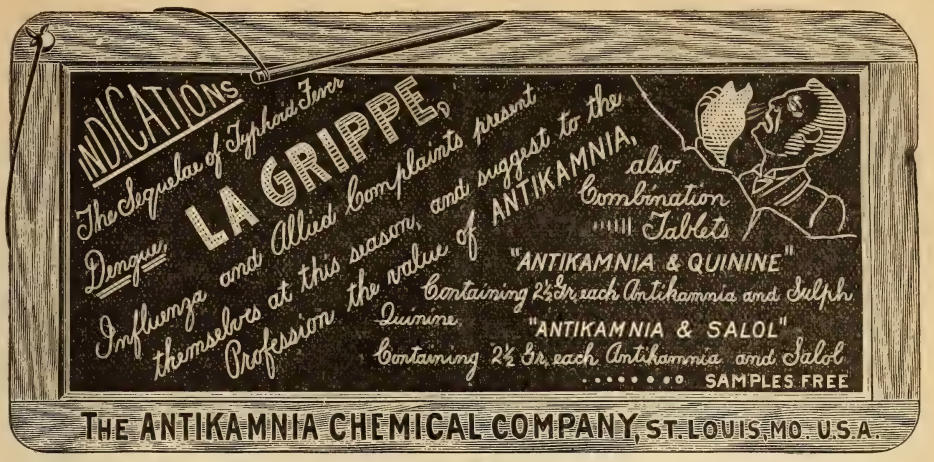
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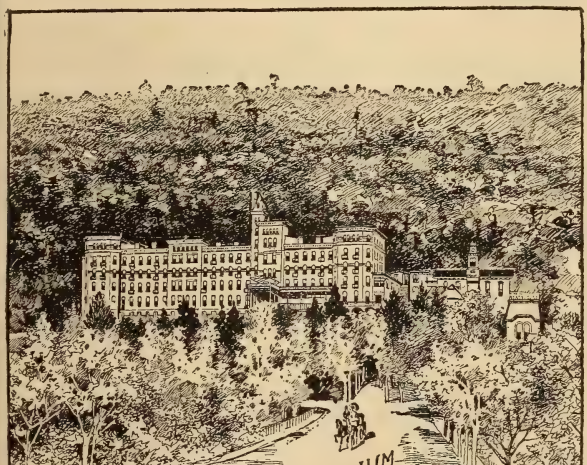

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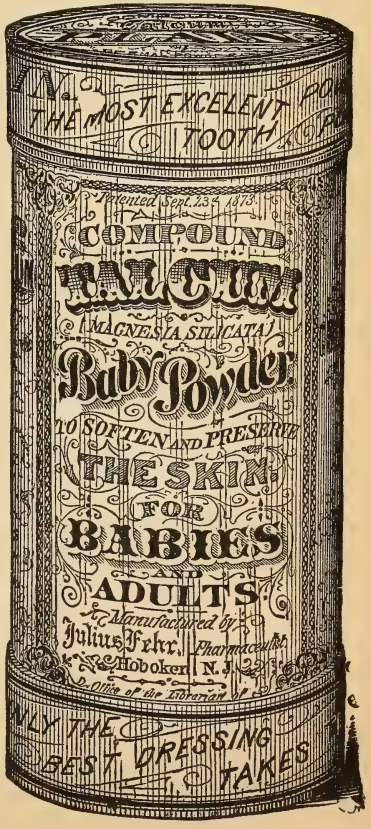

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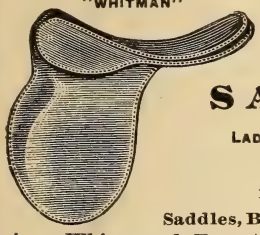

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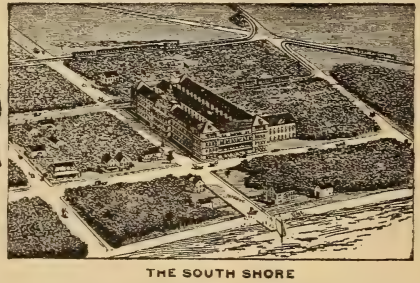

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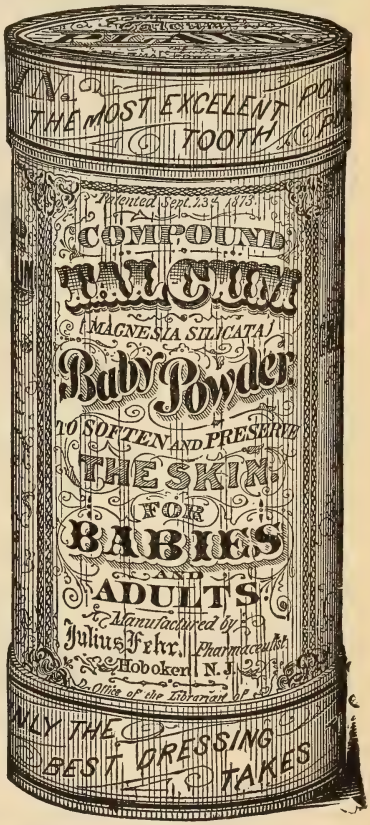

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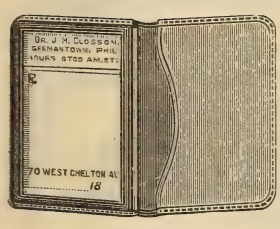

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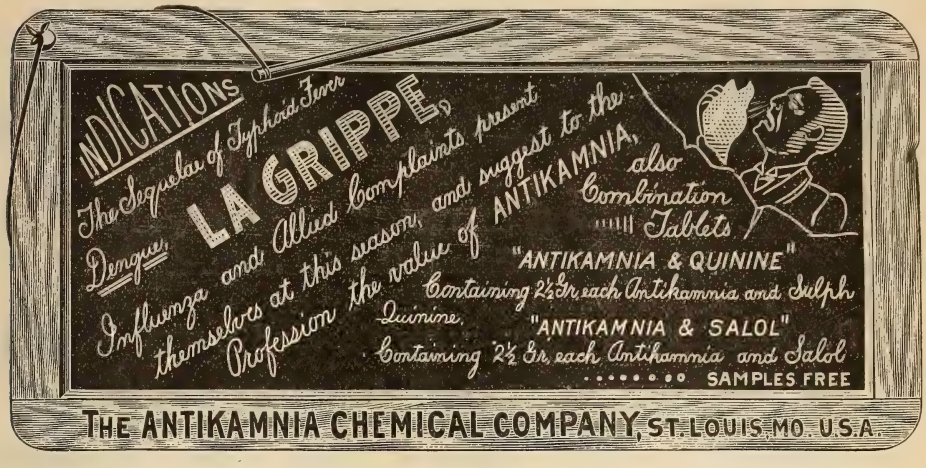
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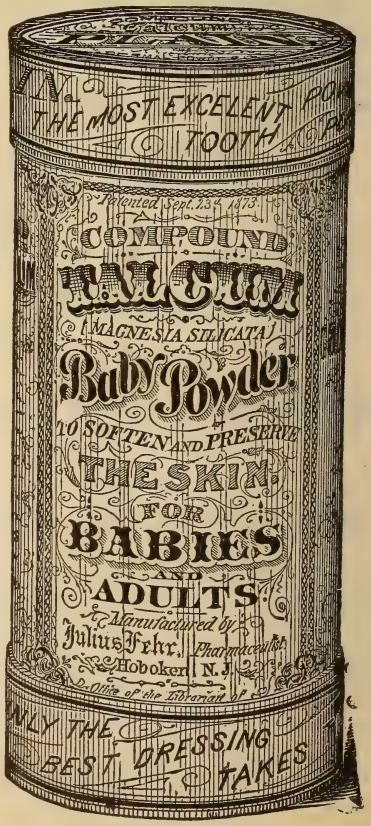

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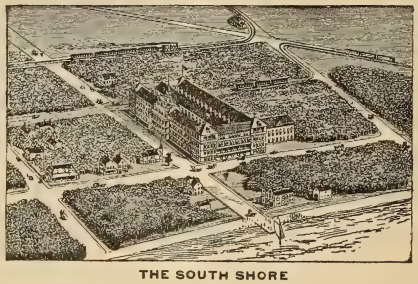

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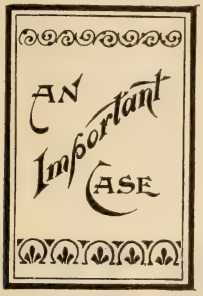

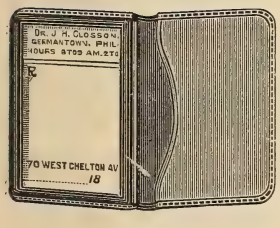

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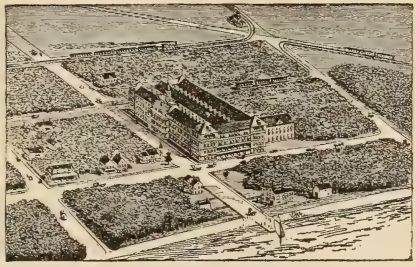
EXCUR  SIONS!

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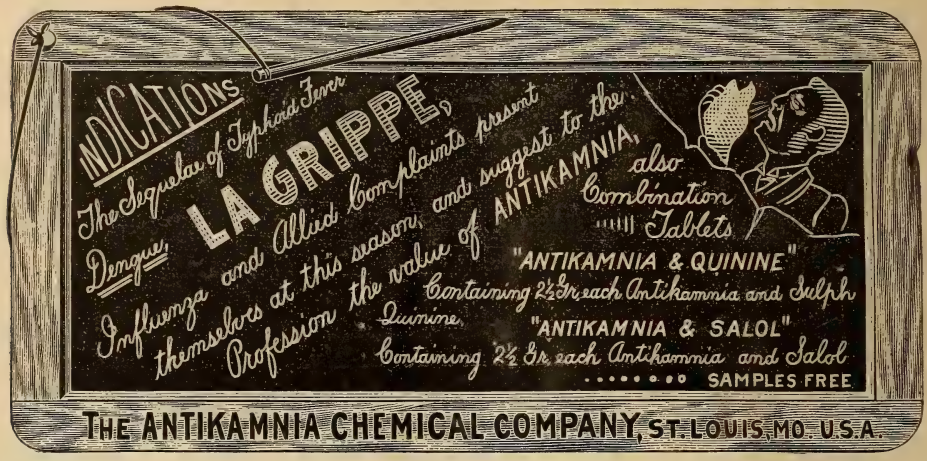
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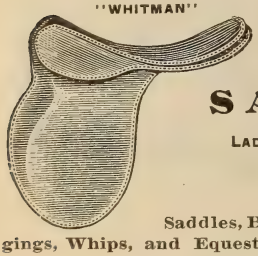

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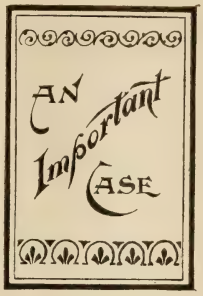

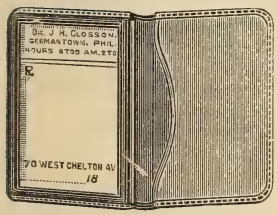

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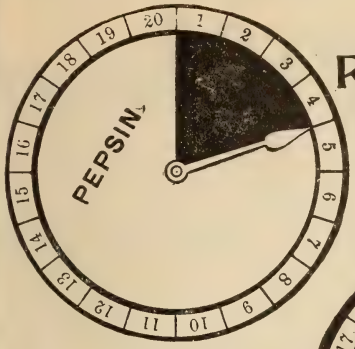

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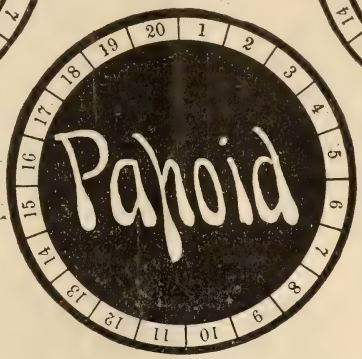

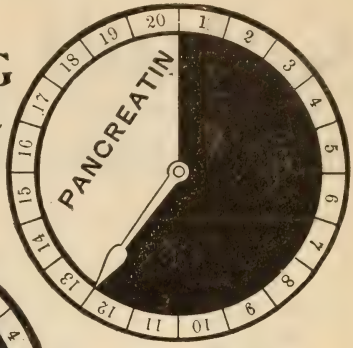

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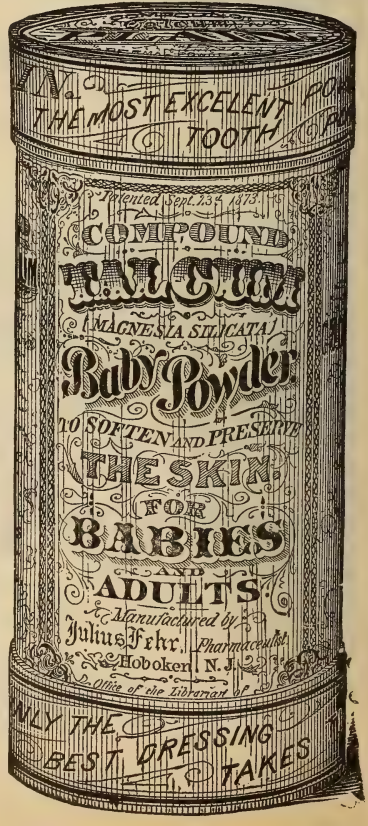

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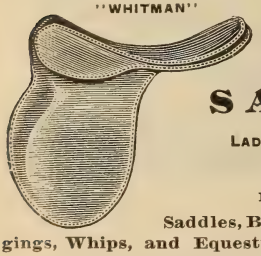

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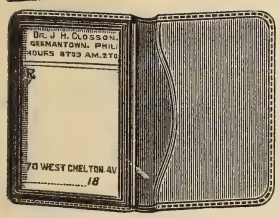

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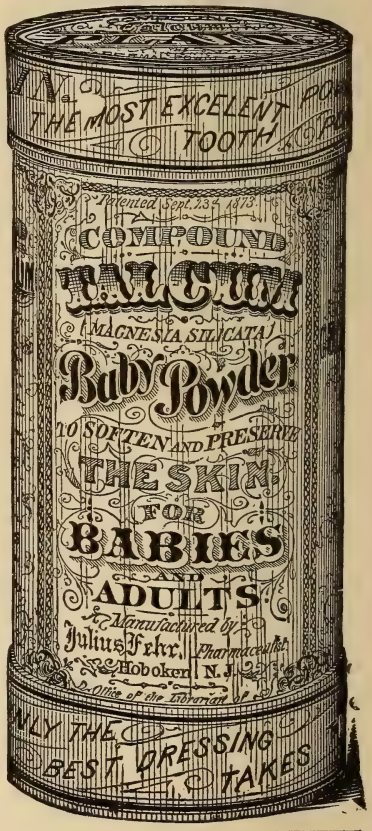

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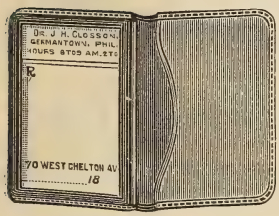

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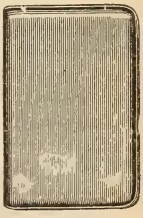
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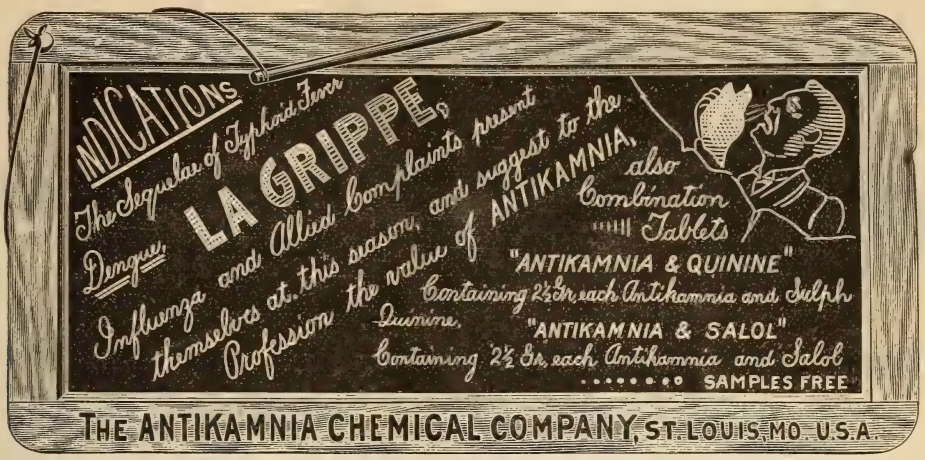
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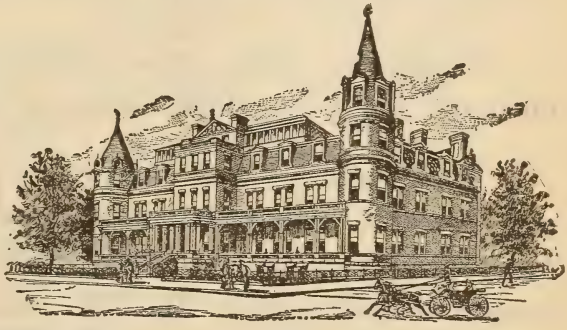

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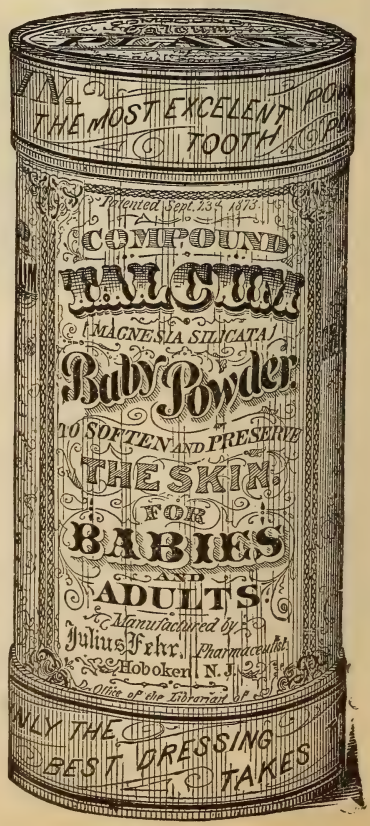

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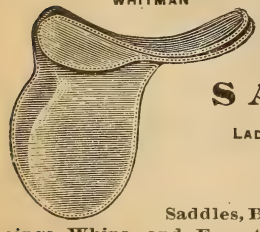

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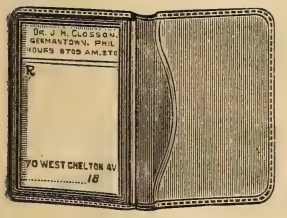

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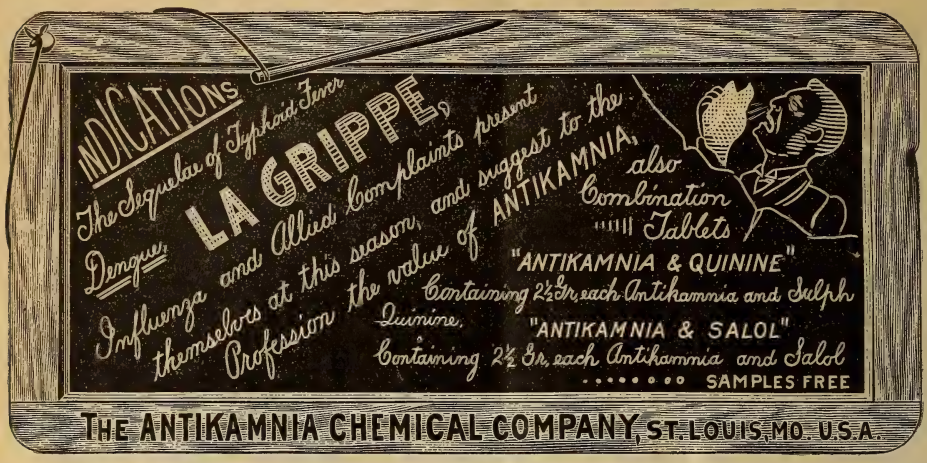
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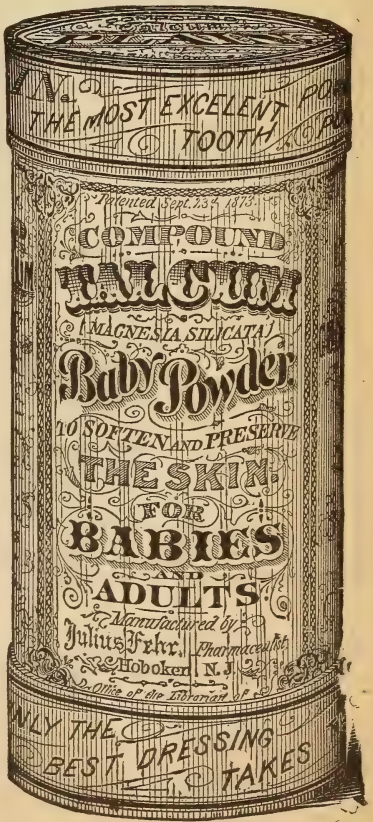

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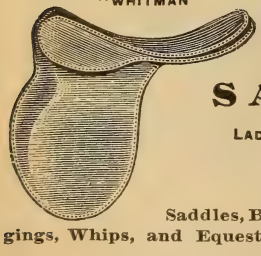

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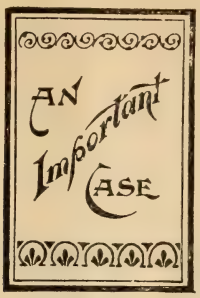

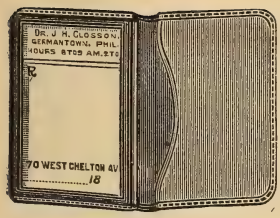

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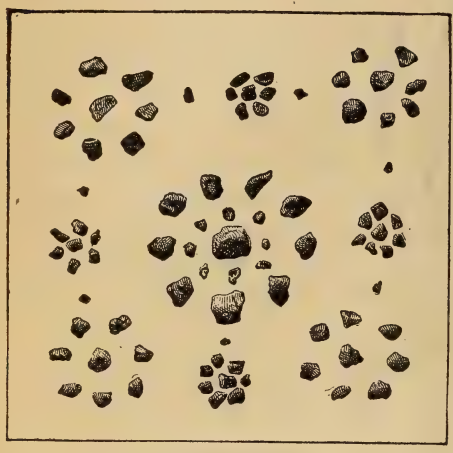

Illustration of the Calculi referred to by Dr. Claiborne. The engraving was made from a photograph and represents the exact shape of the Calcuii; they are four times size of above.

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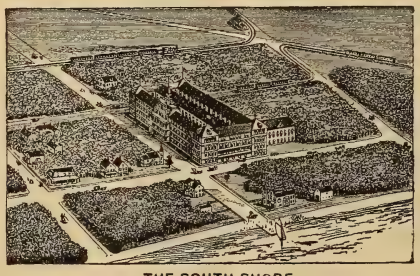

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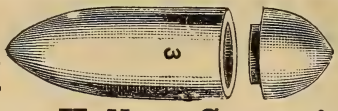

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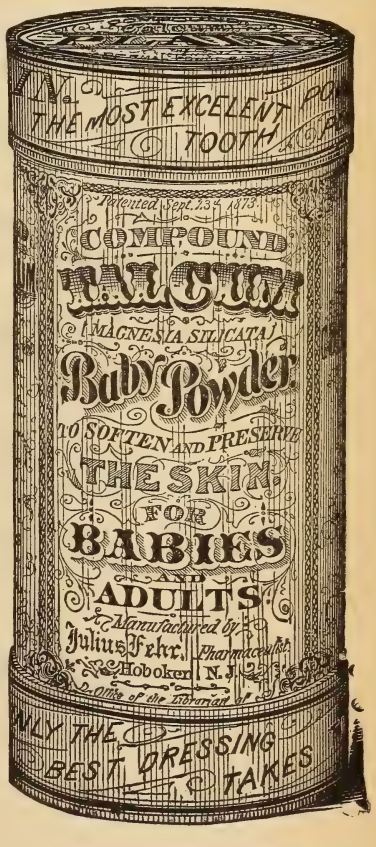

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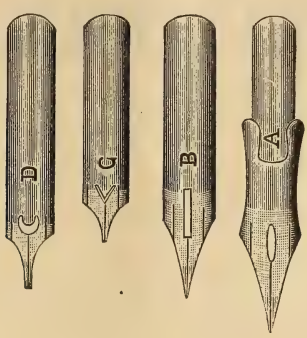

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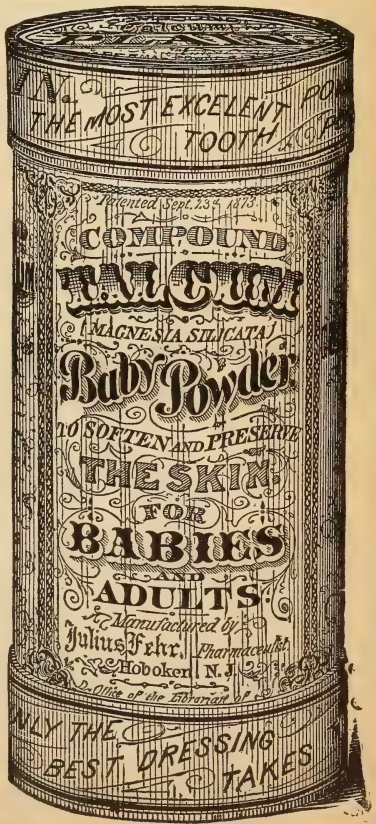

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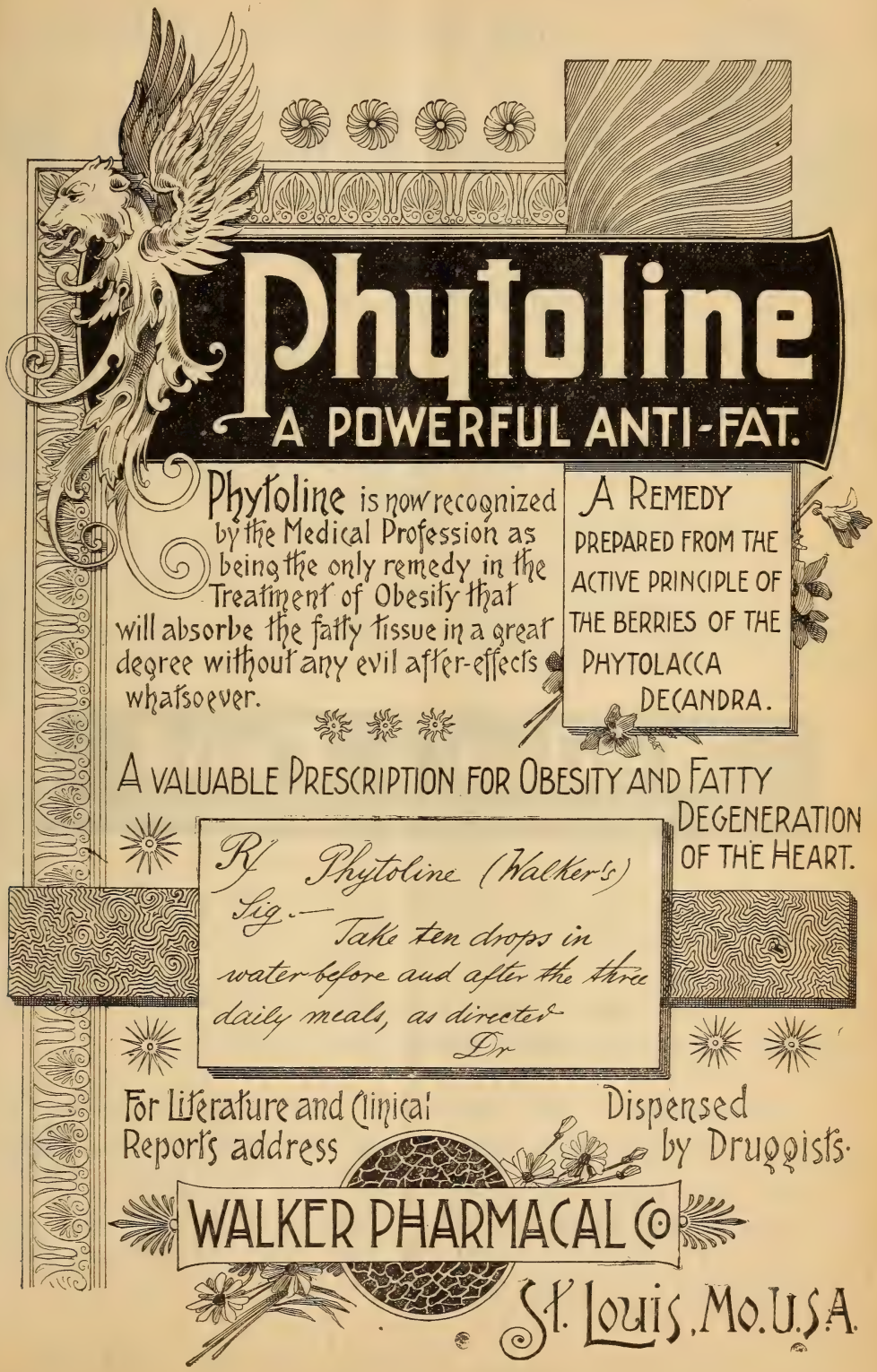
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Ext. Nux Vomica ⅛ gr. | Dose—1 to 3 pills.

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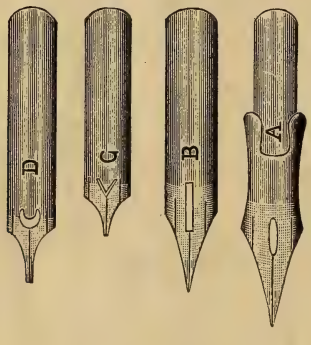

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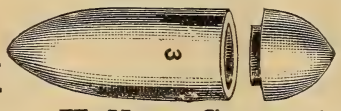

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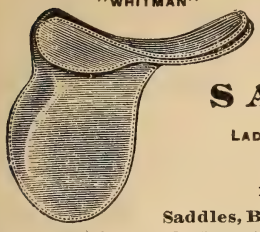

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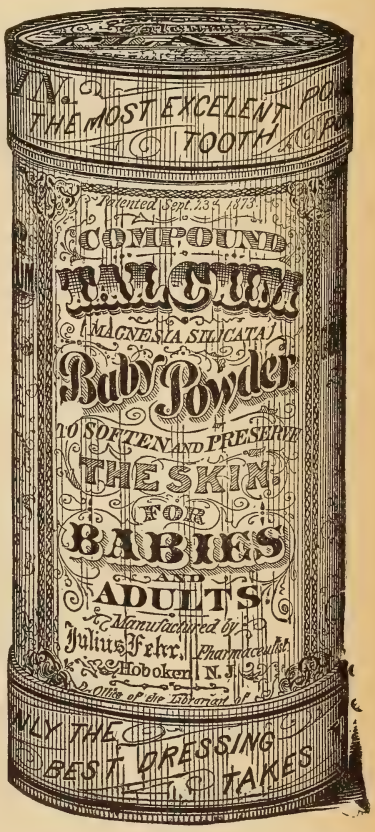

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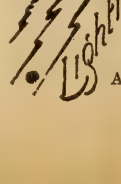

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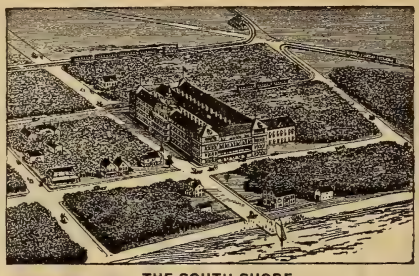

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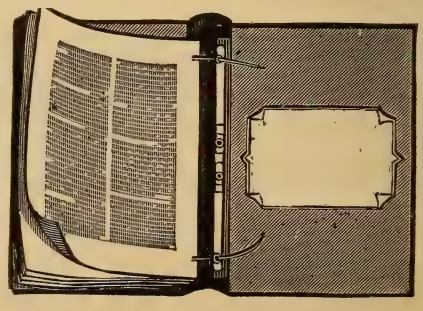

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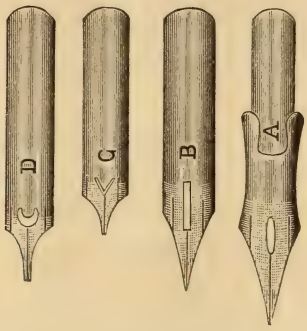

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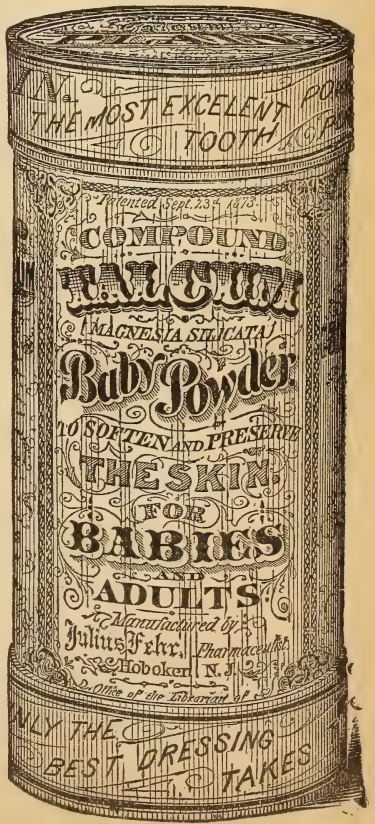

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Dr. Stahl's observations that after one hour's exposure to one per mille, or a quarter of an hour's exposure to $1\frac{1}{3}$ per mille solution of FORMALIN, the most resistant forms of micro-organisms were destroyed. FORMALIN, therefore, is equal at least in germicidal power to Corrosive Sublimate, and, under certain conditions, superior when Albuminoid Solutions are present.

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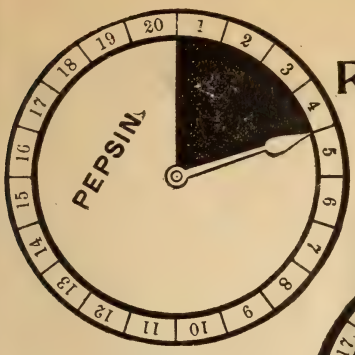

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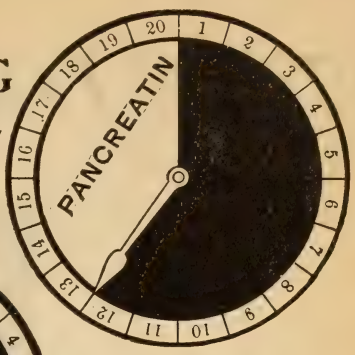

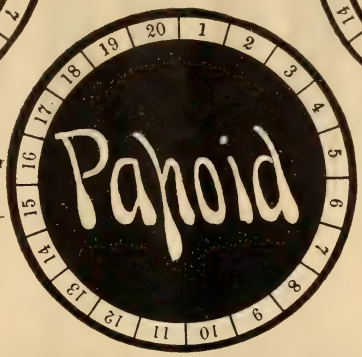

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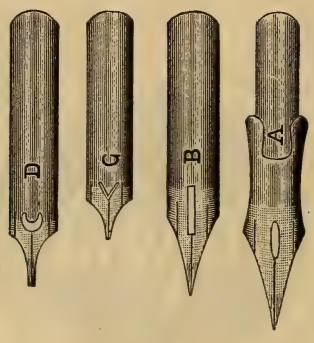

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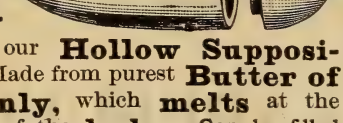

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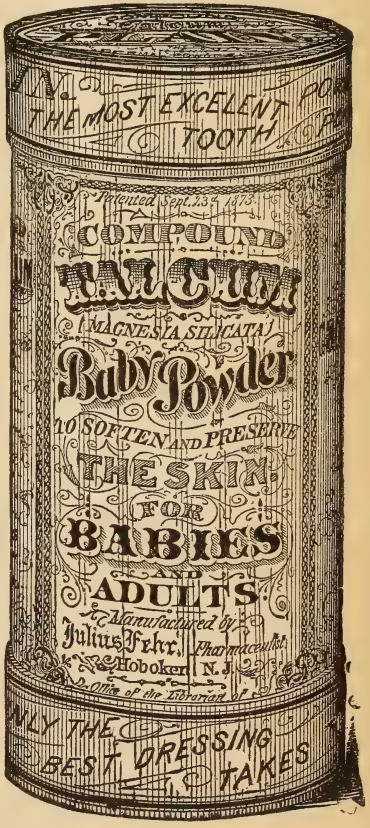

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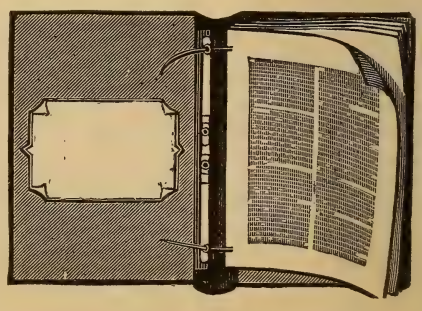

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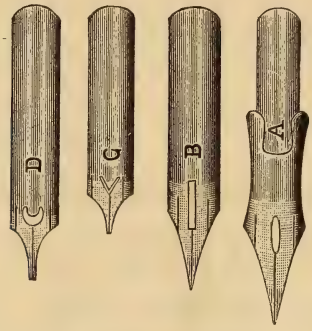

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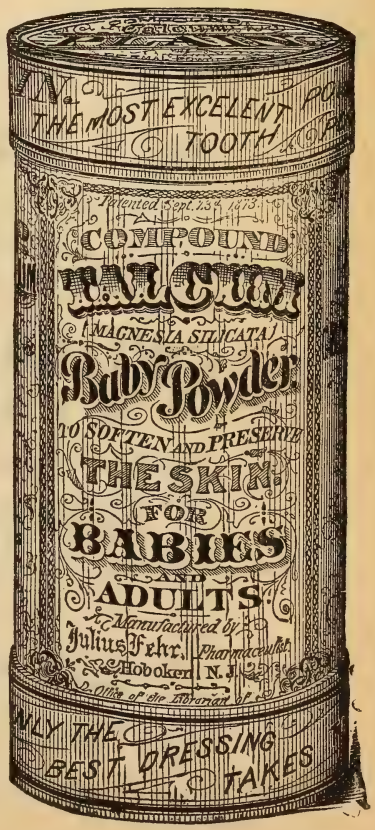

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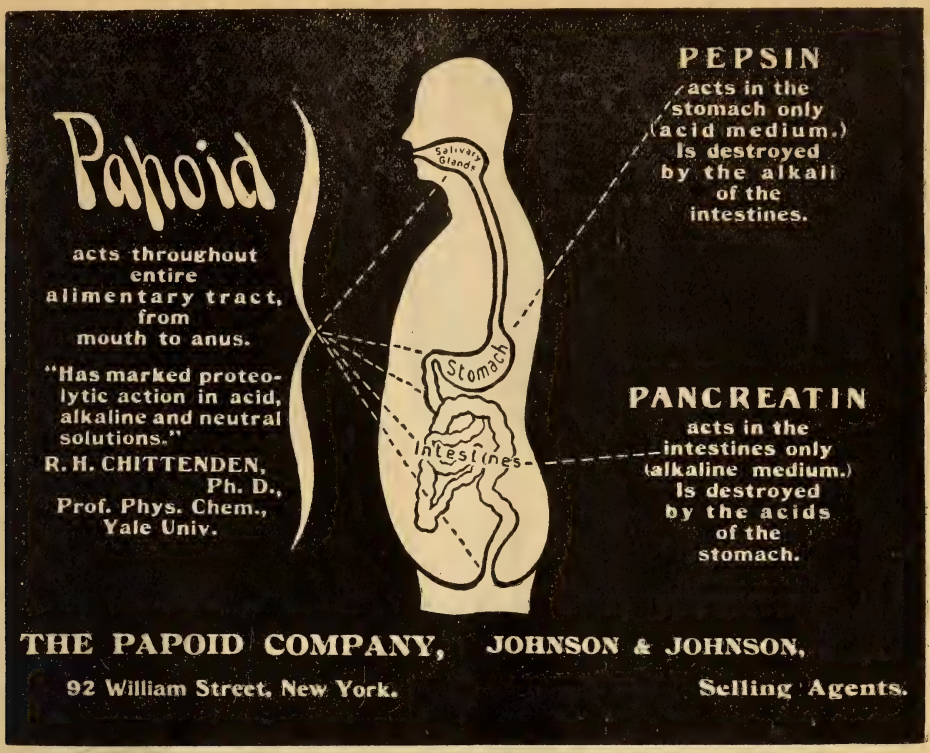
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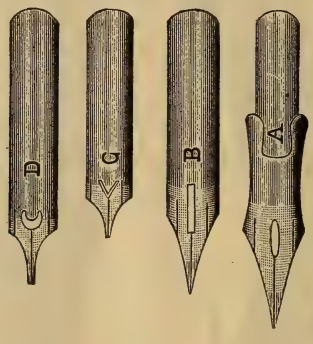

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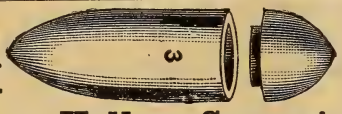

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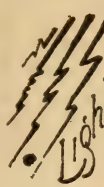

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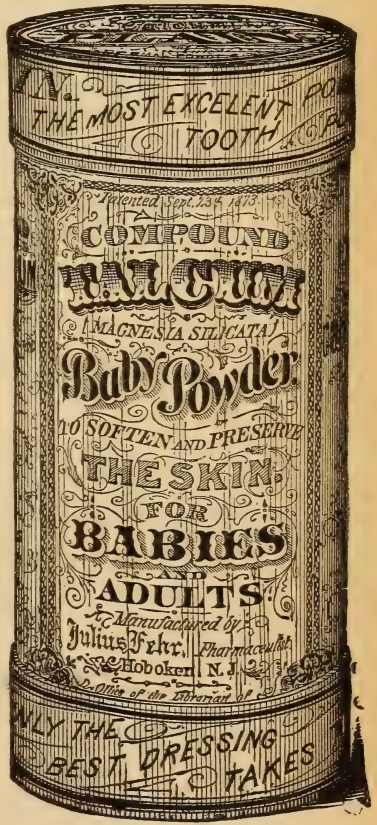

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